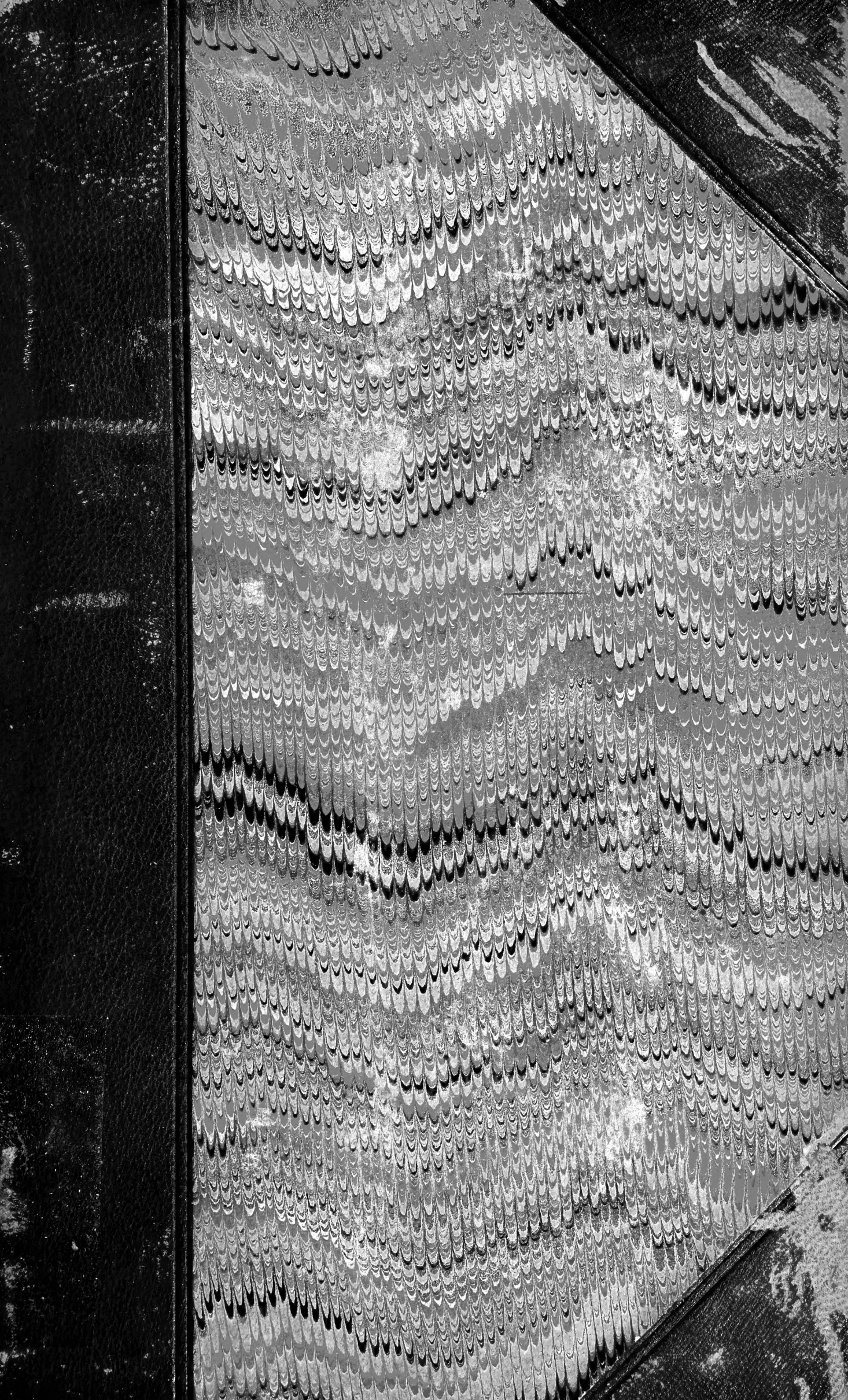


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



LIBRARY

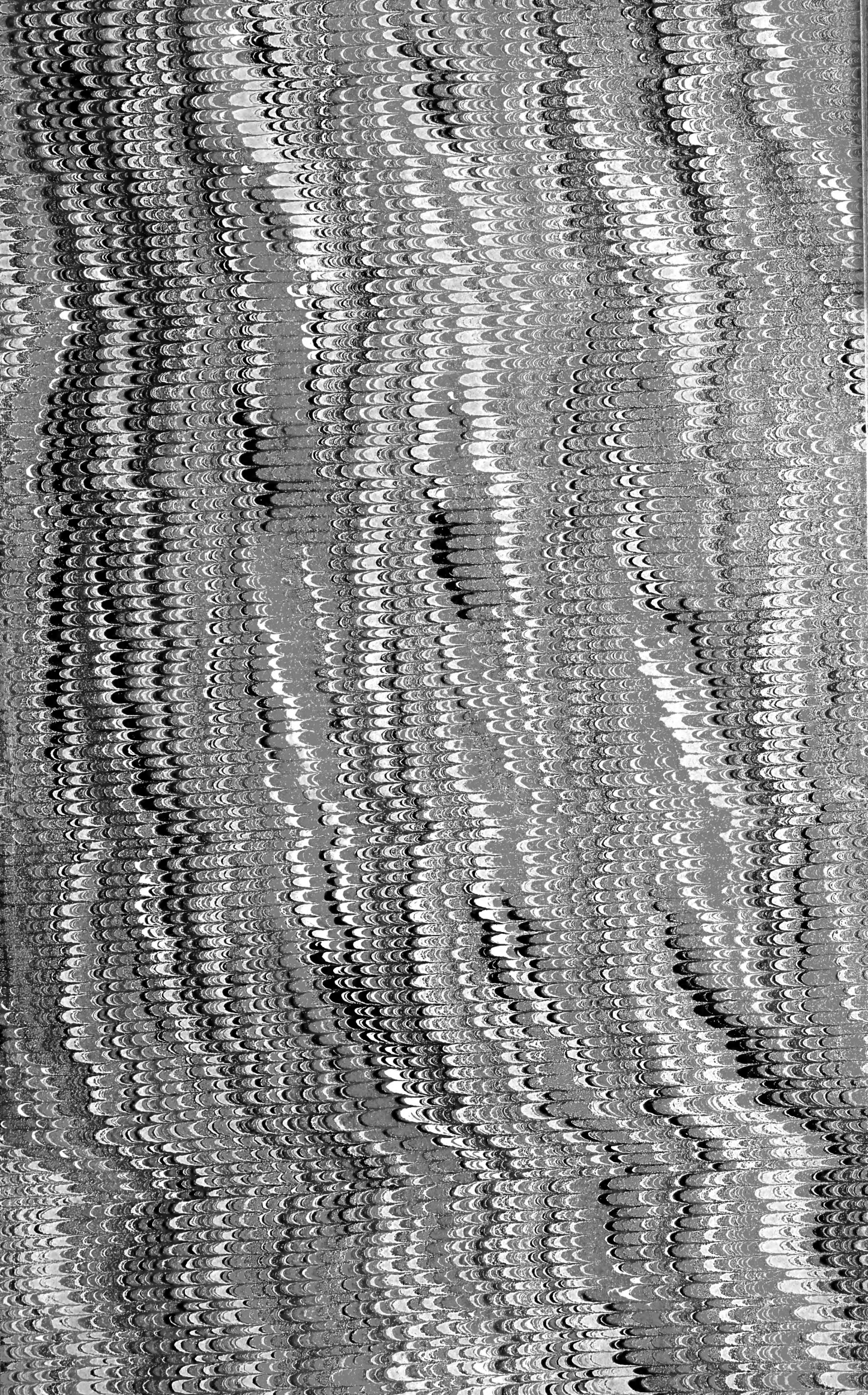
OF THE

U. S. Department of Agriculture.

Class 80
F663

8-159

V. 13



INV. '6Q

THE
FOREST, FERTILIST,

GARDEN MISCELLANY

THE
GARDEN MISCELLANY

THE
GARDEN MISCELLANY

THE
FLORIST, FRUITIST,

AND
GARDEN MISCELLANY.

1860.

LONDON:
"FLORIST" OFFICE, 30, SOUTHAMPTON STREET,
STRAND, W.C.
MENZIES, EDINBURGH; M'GLASHAN, DUBLIN;
AND ALL BOOKSELLERS.

THE RAIL

STATE OF NEW YORK

IN SENATE,
January 10, 1891.

REPORT
OF THE
COMMISSIONER OF THE
LAND OFFICE,
IN ANSWER TO A
RESOLUTION PASSED
BY THE SENATE,
JANUARY 10, 1891.

ALBANY:
J. B. LIPPINCOTT & CO.,
PRINTERS,
1891.

CONTENTS.

Page.

Introduction 1
General Statement 2
Land Office 3
Land Sales 4
Land Grants 5
Land Claims 6
Land Titles 7
Land Survey 8
Land Revenue 9
Land Management 10
Land Conservation 11
Land Improvement 12
Land Legislation 13
Land Administration 14
Land History 15
Land Future 16

ALBANY:
J. B. LIPPINCOTT & CO.,
PRINTERS,
1891.



Pompones. — Seedlings. (Salter)

1. *M^s Turner.*
2. *Jane Amelia.*
3. *Christiana.*

THE
FLORIST, FRUITIST, AND GARDEN
MISCELLANY.

POMPONE CHRYSANTHEMUMS.

(PLATE 159.)

IF the year 1857 was the best known for forty years, for the culture of the Chrysanthemum, it is some little satisfaction to be told, by no less an authority than Mr. Broome, that 1859 is the worst; some satisfaction to those who, like myself, were looking forward to an extra good one; who had been favoured with some of the newest and best, and was eagerly expecting to top my friends, and who, instead of a brilliant display, was compelled to witness only discoloured, soddened blooms; to find Queen of England no better than a draggle-tail, Prince Albert especially seedy, and other distinguished personages no better than they should be. It was some satisfaction, I say (I am afraid of a very savage kind), to see all around me in the same plight; to find the Temple Gardens by no means as they have been, and to read Mr. Broome's description of the season, in the December FLORIST. How could it be otherwise? Seven degrees of frost, heavy drenching rains, diversified now and then with snow and sleet, with gales of wind from the S.W., blowing right on the plants, and no shelter. It would have puzzled Sir Joseph Paxton, or even the great D. B. himself, to have avoided it; but it made me come to this resolution—that I will never again attempt to grow my few without some kind of protection—for I do grow only a few; my "square inch" of ground will not permit me to do more, and even these can only be done by great manœuvring, and by keeping the plants small; my object is, consequently, to have only really good kinds, whether they be new or old. Having, then, on the 10th of November, a few hours to spare in London, I had a nice little argument with myself what I should do. It was the second day of the Crystal Palace show.

Should I go there, or should I pay a visit to the Chrysanthemum King at Hammersmith. In the former I should be sure to see, what I have never yet beheld—those marvellous sized plants one reads of continually at the shows, plants trained in all ways, standards, pompones, on single stems, 4 feet through, and all such wonderful things; and in cut blooms, their flowers so dressed out, their garments so arranged, that even their own parents wouldn't know them; on the other hand, I should see at Hammersmith all that was novel and good, should have an opportunity of comparing the new and the old blooms, learn which to weed out and which to look forward for; and so, after a while the argument came to a conclusion that I should try Hammersmith. I had not been there for some years, but I knew that a kind and courteous welcome would await me from Mr. Salter, and not only me, but anyone who pays him a visit. As I entered his nursery I saw that he had fared no better than his neighbours; and that, as far as out-of-doors blooms are concerned, there was nothing to be seen—all blackened and destroyed by frost and wet; in fact, utterly gone. Had the season been favourable, his long border would have been a fine sight; as it was, it only seemed to say, the "killing frost" has come, and robbed me of all my glory. But this was amply compensated for by the display in what Mr. S. calls his winter garden. The stages of a greenhouse of some considerable size (and which has this year been enlarged) had all been removed, and their places supplied with beds edged with Box and gracefully curved; the paths well made, with gravel, and a few ornaments, in the shape of figures, &c., scattered up and down. The beds were filled with Chrysanthemums of all colours, which had been taken up from the borders, before the frost came, while here and there were some which had been grown as specimen plants. The addition ran across the other at right angles; and as the wall of it was covered with large-flowering Chrysanthemums, the effect was exceedingly good; and one could not but acknowledge how much we are indebted to this charming autumnal flower for prolonging our enjoyment in blooming plants. Formerly, when the first frost came, and Dahlias fell beneath it, we shut up for the season; while now they come in to cheer us on till Christmas; and as late-flowering ones are being introduced, it may be for a month after Christmas. We had an opportunity of going over some of the best of the old kinds and comparing them with the new ones. I took notes of them then, and Mr. S. kindly sent me some blooms afterwards, so that I was enabled to examine them more minutely. The impression that I derived from a general survey of the new flowers was that the greatest novelties will be found this season.

in the large-flowering varieties; but as some of these will most probably be figured in the *FLORIST*, I shall confine my observations to Pompones, three of which form the plate for this month.

In looking over the list which I gave (not on my own personal inspection) in the *FLORIST* for March last, and comparing it with experience since then, I find that there are marked by me as specially good—Andromeda, Eliza Conte, Golden Cedo Nulli, Madame Fould, Madame Miellez, Madame Moliere, Madame Sentir, Mrs. Dix, Mr. Astie, and Salomon. Some of these are decided acquisitions—very free in blooming, of good habit, and of beautiful shape.

The following new ones will, I think, be found additions and improvements on existing varieties :—

Fanny, orange red, a very free bloomer, makes a good pot plant.

Emily, very fine bronzed rose

*Christiana, fawn tipped with orange, good form and habit.

Edith, rosy salmon, very pretty

*Mrs. Turner, fine pure white, hybrid pompone, of good shape and habit

-Eva, canary yellow, bronze centre, delicate colour, free blooming

Madame Pepin, chestnut, very fine

Miranda, fringed rose, quite a ball, but the fringe gives it rather the appearance of being nibbled

Distinction, creamy white, much the shape of that fine flower, Madame Fould

Musidora, mottled orange and chestnut, small and pretty

*Jane Amelia, dark rosy carmine, in colour between Riquiqui and Salomon, free bloomer and excellent form.

Those marked with an asterisk are figured this month, and Mr. Andrews has succeeded in giving excellent likenesses of them; though, perhaps, Mrs. Turner looks larger than it really is.

I have said nothing about the cultivation; for, thanks to Messrs. Broome, Dale, and others, that is now pretty well understood. If one wishes to grow them for exhibition, it is only needful to attend to the directions of these gentlemen, and large and monstrous plants will reward the cultivator's efforts; while, if only for ordinary purposes, there is no plant so easily managed, or that will more thoroughly reward the care bestowed upon it; and I have only to repeat that, to provide against disappointments, it will be necessary to have a temporary shelter, either of calico or glass, when the blooming season comes on.

I have noticed most of the additions of late, but an application to any of the large growers will be sure to receive attention, and they will tell what are the most desirable kinds for general or exhibition purposes.

Deal, Dec. 19.

D.

TIFFANY AS A FRUIT PROTECTOR.

FEW of our readers will have forgotten the famous discussion on the subject of protection to wall fruit trees, which took place in our pages a few years back. Since that time, we imagine the views of some of those who then advocated that protection was useless have materially changed. The spring of 1859 has taught us a lesson which will not soon be forgotten; for even under canvas screens, unless where the material was of extra thickness, crops of wall fruit were destroyed; and we have heard of some being killed even in orchard houses. These facts go to establish a pretty plain truism, that a crop of wall Peaches, without protection, is about as certain, in such seasons as the last, as the premier prize in the great Frankfort lottery.

To redeem our pledge of last month, we shall now say a word or two on the subject of tiffany as a fruit protector.

It is no argument against the use of protection to say that it sometimes does more harm than good. We know such is the case when the protecting material is applied some time before the bloom opens; and when kept on the trees constantly, it prevents the bloom opening freely, and this exclusion necessarily causes the blooms to expand weakly, and to set indifferently; add to which the young wood comes weakly, and the attacks of the green-fly are almost certain to follow. This state of things usually occurs where coverings of fir branches or other evergreens have been used, as well as canvas netting, &c., where the means do not exist for removing it entirely when the days are fine; as we consider it *indispensable* to the setting of the fruit that the trees when in bloom should be *fully* exposed on all favourable occasions.

The most certain mode of protecting wall trees hitherto adopted (glass of course excluded) is a somewhat expensive affair, and consists of canvas mounted on rollers in the usual way, and made capable of letting down and rolling up over lean-to poles, placed at a distance from the walls, to clear the trees sufficiently. This is the plan practised at the Royal Gardens and elsewhere. The covering is let down each night, and rolled up by day when the weather is fine, and indeed at all times unless when freezing. Of all the appliances we have seen this is the best. The material may either be canvas as stated, woollen netting, or frigi domo, which are more expensive, but will last longer than canvas.

What we propose to do with tiffany is to form with it a kind of artificial coping, projecting 3 or 4 feet wide from the top of the wall, and which we shall consider as a permanent protection while the trees are in bloom, and continued until the weather becomes warm enough to prevent its injuring the young foliage, which in cold seasons is liable to blister and curl, up to the middle of May. We have found the use of projecting copings of wood used as a protection objectionable, by obstructing the light to the upper part of the wall, in place of which we propose substituting tiffany, which would admit light sufficient for

the processes of blooming and setting the fruit, and the growth of the young shoots; the trees in all other respects being fully exposed. This tiffany coping will keep the walls and trees dry, and also keep off all but the severest frosts—saving a deal of trouble in covering and uncovering, which must follow even when canvas rollers are used, and more so where any other kind of protection is employed. A three feet width of tiffany will be sufficient for walls under 10 feet, and 4 feet for those higher.

The way of fixing the canvas is this:—3 or 4 feet from the face of the walls, as the case may require, stout larch poles are to be fixed upright in the ground, 10 feet apart, the poles to be 1 foot higher than the coping of the wall. The tops of the poles to be cut square, and on these are laid longitudinal rails, formed either of 3-inch sawn strips, or smaller poles sawn down the middle, and either screwed on to the uprights, or fastened by a pin and eye made to take out easily (the posts and railings are to be kept from year to year); another strip of wood is laid on the edge of the wall coping, to which it will require fastening, and from this bracing pieces should be thrown opposite each post, to the front rail, and properly secured, as well as one in each interval; the whole forming a stout frame, which will, by marking the pieces when taking them down, last for a number of years. It now only remains to stretch the tiffany over the frame (as this can be bought in 3 and 4-foot widths there will be no trouble in cutting it), tacking it on with a list binding to hold it firm. We observed above that the posts are to be 1 foot higher than the wall, which, with the railing, will make 15 inches, so that there will be that fall from the front of the tiffany coping to the wall. This projection of the coping upwards also serves two objects—it will admit more light to the tops of the trees, and cause a good deal of the rain falling on the tiffany to run off to the wall coping. Except in cold weather, this temporary coping will form a sufficient protection without anything being placed along the front, and the full exposure of the trees to the sun and air, while at the same time they are kept dry and safe from all but very severe atmospheric changes, constitutes the great value of the plan as compared with close covering. To ensure further protection in the case of severe weather, small tenter hooks should be fixed on the front of the top rail, on which netting or tiffany may be hung from post to post; or what would involve but little more trouble, a slight iron rod might run alongside this front rail, on which the netting or tiffany, furnished with a binding and rings, might be suspended in bad weather, and drawn aside when not required. From our experience, however, with a wooden coping, we feel satisfied the front protection would be required but seldom, and, if netting is used, might remain for several days without removing, as sufficient air would get admittance through the meshes. Nothing in our opinion (excepting of course severe frosts) injures wall trees when in bloom so much as sweeping currents of air; to prevent the bad effects of this, upright pieces of tiffany should be run from the ground to the coping, and of equal width. If these breaks are placed every 20 feet apart, when the walls are much exposed, the trees will be preserved from draughts; the good effects of which will be seen by the rapid growth of the young shoots, with the leaves free from blister and curl; and, as wood thus formed

early will ripen better, it is important to secure it by all means. One advantage this plan presents, even should front protection be given, is that from the construction of the frame the trees can at all times be examined, and even dressed, without interfering with the protection. When the weather becomes settled, the whole may be taken away, the framework marked for putting up when again required. A coping of this kind could be so cheaply and easily fixed, that it would be no great job to fix it on any wall on which fruit trees are growing which are not usually covered, as Pears, Plums, &c.; in which case, as only the top coping would be wanted, the frame might be supported by bracings secured to the front rail and let into the wall below. Its application to espaliers would only require that it be stretched in a continuous line along the rows and 1 foot above the trees, which could very easily be done by driving stakes at intervals on each side the espaliers the required height, and securing a rail of ashens rods to their tops on which to fasten the tiffany, which in all cases should be stretched tight and well secured.

We believe this simple appliance of a simple material may be the means of preserving to us much fine fruit now frequently lost from the want of some such cheap article. We have strong hopes of employing tiffany as a fruit retarder, particularly for Peaches, Apricots, &c., but this must await the result of the necessary experiments to satisfy us on the point.

THE SIX OF SPADES.

MY Lord Dufferin, in his "Letters from High Latitudes," tells the affecting story of a conscientious cock, who, perplexed by the perpetual sunshine, and unable to discharge the vocal duties which seemed to ensue therefrom, eventually crowed himself mad, and put an end to his existence with his own wings, by abruptly flying into the sea. "As we proceeded north," he writes (the nobleman, not the fowl), "and the nights became shorter, the cock we had shipped at Stornaway became quite bewildered on the subject of that meteorological phenomenon, the dawn of day. In fact, I doubt whether he ever slept for more than five minutes at a stretch, without waking up in a state of nervous excitement lest it should be cockcrow. At last, when night ceased altogether, his constitution could no longer stand the shock. He crowed once or twice sarcastically; then went melancholy mad; finally, taking a calenture, he cackled lowly (probably of green fields), and leaping overboard, drowned himself!"

It is, I say, a sorrowful story, especially when we reflect that under happier circumstances, this cock might have reached a good old age, and seen his daughters laying peacefully around him, and his sons a fighting one another like anything.

Analogously, I go on to consider whatever would become of us gardeners and florists if we were sentenced to an everlasting summer, if our conservatories within and our gardens without were, day after day, and

week upon week, to glow with undiminished splendour, and make the air heavy with exhaustless odours. Would not our eyes be dazzled into weariness, aching and winking, as when in our early youth we overdid them with our new kaleidoscope? Would not our nostrils finally be enforced to entreat the intervention of our forefingers and thumbs, to supplicate the presence of our pocket-handkerchief, lest we should die of aromatic pain?

Our powers of appreciating the beautiful are finite, soon tire, and need repose. What appetites we bring home from the loveliest scenery! How thirsty we were at Tintern! How we rush from the pre-Raphaelite glories of the exhibition to our strawberries and iced cream at Grange's! How palatable the oysters, how creamy the stout, how delightfully appropriate the bread and butter, when we have attended a *spectacle* at the Princess's.

Hence, horticulturally, I can welcome winter with gladness, and can thoroughly enjoy its calm repose. I can, with perfect equanimity, bid farewell to my Chrysanthemums (though they *are* 4 feet in diameter), and can pleasantly drink to our next merry meeting in the silver cup which they have won. I want no conservatory, gay with Camellias, with the Epacris, the Primula, and the Rose; I desire to rest and think. I can bide my time, patiently and thankfully, until the spring-light wakes my Cinerarias to bloom, and bids my Hyacinths yield their poesy of fragrance. My appetite craves for no stimulants, and asks no artificial food. It desires to say Grace, and to rest, that it may be hungry again and healthful, when Nature shall prepare the feast.

If ever I grow weary, weary of my leaflessness and clayitude, good winter hath two ministers, Hope and Memory, who never fail to cheer. I have but to close my eyes, and Memory displays once more before me those brilliant banks of Azaleas and Rhododendrons which glowed last spring at Sydenham and "the Park;" I gaze again upon the grand Geraniums of Slough; I scent the Roses which brightened up the square of Hanover, and made the admiring Londoner forget his Thames. Or Hope speaks musically of the future; points to those dear little cuttings, so bravely upright in their tiny thumb pots, so charmingly conceited at having roots of their own, and tells of their growth and glory.

And I never realise more pleasantly, or appreciate more gratefully, this welcome rest and happy thoughtfulness of winter, than at the meetings of our little society, which we call "*The Six of Spades*." Come with me, reader, into our club-room, and let me introduce you to the members.

That club-room on this occasion (for we vary our place of meeting) is my garden-house, a warm and cosy chamber, I can tell you, or what would happen to those seed-bags hanging around, or to those tubers of the Dahlia, piled, dry and dormant, in the background? The adjuncts of the apartment might not, perhaps, impress any but a floral mind with an idea of beauty. There is a potting-bench beneath the closely-shuttered window, with a trowel protruding from such well-matured and mellow soil, that I have heard my gardener declare it to be "as rich as a plum-pudding." Hard by, two bulky bags of sand

from Reigate lean lazily against each other, like two aldermen of extra corpulence going home after a Lord Mayor's feast. Beyond is a pyramid of boxes, with many a railway label on their green exteriors, to tell of the anxious miles they have travelled with Pansies, and Carnations, and cut Verbenas, and Roses, and Dahlias, in the sunny days that are past. Then comes a solid quadrupedal desk, full of catalogues and secretaries' letters, and "*Chronicles*" and "*Florists*" good store. Next to it the painter's studio—a table with pots of green and white paint, and neat "tallies," and slim training sticks, and circular wire-work, balloons, and baskets of a dozen fanciful designs. Upon the whitewashed walls a pair of bellows appear to be discoursing with a "Brown's fumigator" on the best method of getting rid of aphides. A wrathful canary, roused from its slumbers, twitters expostulations from its cage, and wishes "*the Six of Spades*" at Jericho. Above the fireplace is a piece of broken looking-glass, before which I once saw an under-gardener attempting to shave himself with a new budding knife, and making such grimaces of direful but unconscious ugliness, as would have established the reputation of a clown for life! On either side of this mirror, but deserving a better place, are some of Mr. Andrews's charming delineations of flowers and fruit—among the latter a bunch of Grapes, once so lifelike and luscious to look upon, that they might have been the identical bunch which the American artist painted for his mother with such extraordinary power, that the old lady was enabled to manufacture from it three bottles and a half of most delicious wine; but now sadly disfigured by dust and smoke, and rapidly changing their complexion from pale Muscadines to Black Hamburgs.

And now all is in readiness for our conclave, and the members of our small society arrive. Before our blazing fire, which roars a hearty bass to the mirthful tenor of the kettle, is a table for our pipe and glass, behind that table a roomy garden seat, which will accommodate four of our party, and on either side the fireplace a spacious comfortable chair, the one allotted to myself as President, and the other to Mr. Oldacres.

Mr. Oldacres is the gardener at the Castle, and a "grand old gardener," too, you will admit, as he takes off his overcoat (he has walked two miles through the Park this winter's evening), and shows you six feet of humanity, so handsome and so hale that you feel proud of belonging to the genus man, generally, and to the species Englishman, particularly. Six feet high and straight as a guardsman, though he has seen the Chestnut trees of his Great Avenue in flower for seventy springs, Mr. Oldacres is a model of manly beauty, from his neat drab gaiters (our ancestors had calves to their legs, and knew it) to the crown of his "frosty pow." Was ever hair so silvery? Was ever neckerchief so snowy white? Was ever face (what a razor must he have!) so bright, so smooth, so roseate? If the French should ever take possession of this country, and compel us to adopt their unpleasant custom of osculating our male friends, I should first endeavour to overcome my repugnance by kissing Mr. Oldacres on both cheeks. There is a perpetual smile and sunshine on them, and in his clear blue eyes, as though he had lived always among things beautiful, and their

exceeding loveliness had made his heart glad. What pyramids of Pine-apples, what tons of Grapes and Figs and Peaches, what acres of flowers, tender and hardy, those hands have tended ! The Duke, his master, denies him nothing, and horticultural novelties and floral rarities (things which you and I, my friends, sigh for, and save up for, and speak of with "bated breath," and possess only in our Midsummer Nights' Dreams), these come to the Castle by the boat-load, or travel by the rail on trucks ! When you see his soil-yard you imagine that sappers and miners have been at work for weeks, and that an army is about to entrench itself within those multitudinous earthworks. As for his "houses ;" houses with enormous tanks, wherein the Royal Lily, Victoria, is waited on by the beautiful Nymphaeas ; houses for Orchids, for New Holland plants, for Ferns, for fruit, and forcing ; his houses of every size and style, from the dingy old lean-to, with its heavy timbers and its tiny, discoloured panes, to the grand conservatory, with its spacious dome, transepts, aisles, broad walks, and sparkling fountain ; of these there is no time to tell. Less need, inasmuch as he, whom I now introduce to you, derives not his happiness from his vast material, his unlimited privileges and rare resources, but from his own good and grateful heart, which recognizes GOD's love and power in all the glorious works around him, and sings

" Non nobis, DOMINE, sed Nomini tuo."

for all the sweetnesses and joys of life.

Give the worthy gentleman, for gentleman he is in mind and mien, one of those long clean Brosely pipes. "My dear young Marquis," he remarks, as he fills and lights it, and the pretty little rings of silvery smoke rise upwards from the ample bowl, "My dear young Marquis brought me years ago, from Germany, a meerschaum, beautifully carved, in which you might almost boil an egg ; and my lord in the Guards, and my lord at Oxford make me presents from time to time of such cigars as I don't suppose are to be bought for money ; but my meerschaum goes out, when I begin to talk, unless I suck at its amber mouthpiece like a greedy child at a piece of barley-sugar ; and the fire of those huge regalias draws so near to my nose, that I grow quite afraid of it ; and, in short, I never enjoy tobacco so much as when it comes to my lips, coolly yet quickly, through these long cleanly tubes, and waits for me patiently, as now, through my tedious old man's sentences."

You would like to hear him respond, I am sure, when we drink his health as our "King of Spades," rapping the table with such strong and sudden earnestness as to bring the canary, just hoping to renew his slumbers, very summarily off his perch. "Sixty years ago," he said in the course of his little speech at our last meeting, "I was weeding the Castle walks. Many and pleasant and prosperous have been my days since then ; and if I were constrained to begin life anew I would ask that it might pass as heretofore. But I have no yearnings, though much thankfulness, for the past. There is mildew among our Roses here, my friends, and bitter frosts, and dreary sorrowful storms. I hope that I do not deceive myself in thinking" (and here he spoke

with such a sweet humility as filled mine eyes with tears) "I trust that I cannot be wrong in believing that, year by year, as I grow older, I draw nearer to a garden of perfect beauty and eternal rest, a garden more glorious than that which Adam lost, the Eden and the Paradise of God."

There was an interval of thoughtful, healthful silence, after Mr. Oldacres had spoken; and we too, my readers, will pause here, if you please, before I introduce to you another member of our club, whom I hope you may like as much as I do,—my young friend, Mr. Chiswick, from the Hall.

S. R. H.

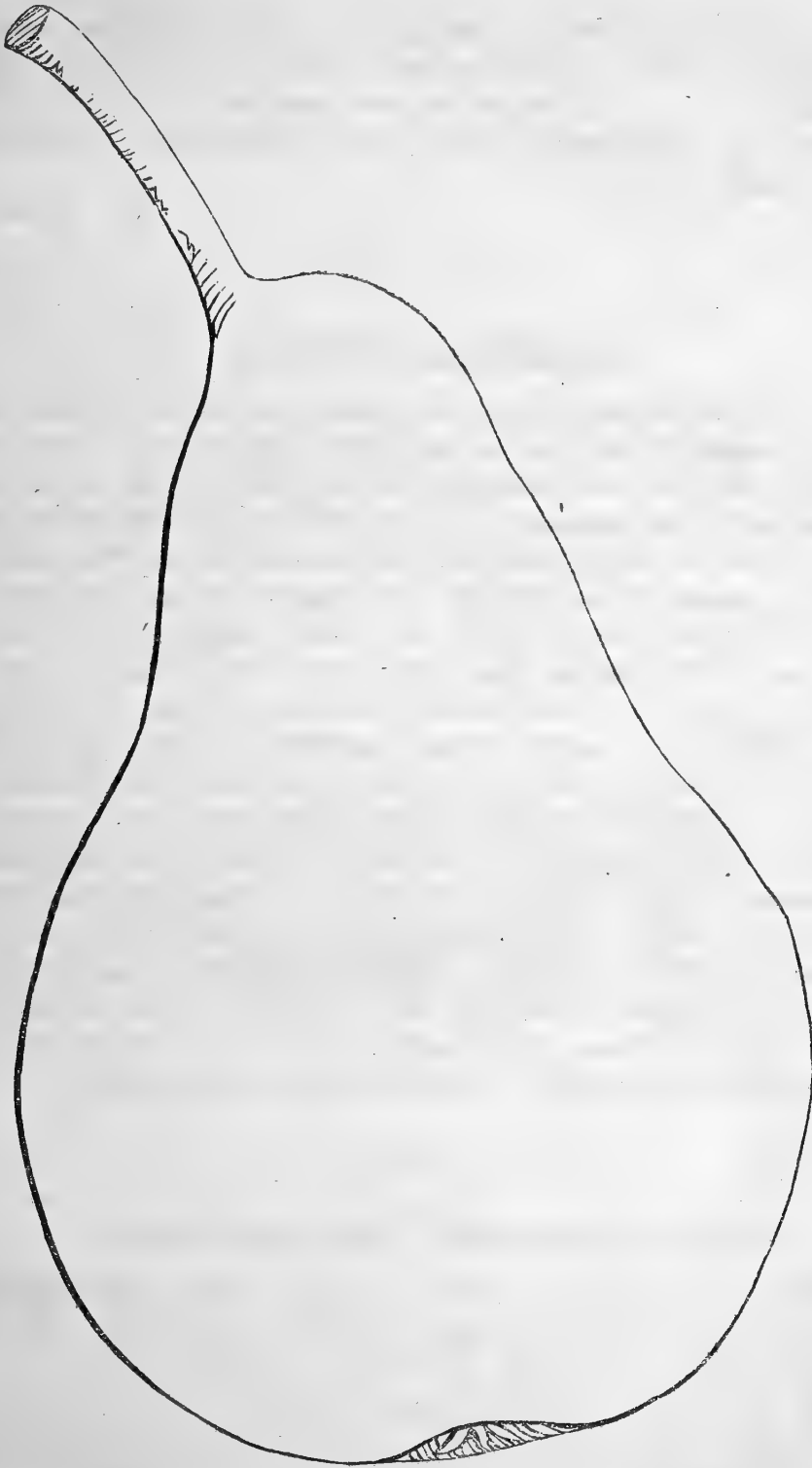
SPERGULA PILIFERA.

THERE have been few things about which so much has been said as about this new introduction—a discovery, it is declared, to be put on a par with steam, gas, electric telegraphs, &c.; and as statues are erected to the discoverers of the above—as James Watt and Robert Stephenson have their names written in their country's annals—so, it is asked, why not erect a statue to the glorious Scotchman who has made this discovery for the gardening world? A colossal statue in the transept of the Crystal Palace, or in Barnum's New York Museum, has been suggested. There are unfortunately, however, differences of opinion as to its merits; and perhaps, before a subscription list is opened for the purpose, it would be well to ascertain what are really its merits or demerits. The Editors of the *Florist* feel assured that many of their subscribers have tried it, and would therefore feel greatly obliged if they would favour them with the result of the experiments, detailing, 1st, where the *seed* or *plants* were procured; 2nd, in what way it has been tried—whether as edgings, patches, or a lawn; 3rd, the result of the trial, as to trouble, time, expense, and effectiveness, compared with Grass. They will thus, by comparing their own experience with that of others, be able the better to give a decided opinion upon it.

NEW LATE PEAR—PRINCE ALBERT.

ALTHOUGH we possess an endless variety of Pears, the majority are either early or of the middle season, therefore a good late Pear is very desirable, to extend the season of melting Pears to a later period, and doubtless this kind will prove a great acquisition, as it surpasses the Beurré Rance both in beauty and quality, and appears to keep longer than that good variety. The fruit is well formed and even in outline, skin greenish lemon yellow, dotted over thickly with obscure brown specks, and at times a good deal spread with rich brown when fully exposed to the sun, and sometimes slightly tinged with red; stalk about an inch long, stout, and usually inserted obliquely, and set without cavity; calyx small and stiff; eye small, and slightly sunk in a shallow

even basin; flesh yellowish white, a little firm in texture, similar to that of the Passe Colmar, which kind it closely resembles both in appearance and quality of the fruit, which is very juicy, saccharine, and rich, with a pleasant musky flavour, and ripens from January to April.



It is best to allow the fruit to hang on the tree till the latest period of gathering. The trees are of healthy habit, and will bear well when grown as pyramids; but to have the fruit in high perfection, the advantage of a warm wall should be given to the trees. We owe the origin of this fine Pear to the late Van Mons, who during his life devoted

much time and was very successful in raising seedling fruit. Many did not fruit till after his death, and it is said the Prince Albert Pear is among the number.

S. POWELL.

THE AZALEA.

I AM an enthusiastic admirer of this beautiful genus of plants, and grow them somewhat extensively, and, if my means could be regulated by my desire to possess a large well-grown collection of these, I believe mine would not be second to even the largest and best collection in the country—for I would have many specimens of each of my favourite kinds, and one of every moderately good variety to be procured. But while I cannot hope to satisfy my desire as to quantity, I am anxious to fully occupy my space with such plants of the very best varieties in existence, as will leave me nothing to desire in regard to those I do possess; and, in order to accomplish this, I have for several years past been a diligent buyer of all the new sorts offered, which I thought likely to improve my collection; but, I regret to say, that my purchases, at least many of them, have not added much to my gratification, and I think that those who have bought and grown all, or most of the new Azaleas, which have been offered during the last half-a-dozen years, will agree with me that too many of them have not proved to be great improvements upon older kinds. But what has annoyed me most in my experience in buying new kinds has been the state of the plants when received; for I consider that when I order a plant at the price at which it is offered, I am fairly entitled to expect to receive a well got up healthy vigorous plant—one in every respect suitable for making an effective specimen in the least possible time; and, if one is justified in expecting to be supplied with plants of this kind, in the case of such things as Ericas and New Holland plants, many of which are neither easily nor quickly propagated, but which, nevertheless, are readily procured by those who know where to order them, in prime condition and at very moderate prices, surely there can be nothing approaching to injustice or driving a hard bargain in expecting the same in the case of Azaleas, which are both easily and quickly propagated, and are not subject to occasion loss to the grower by sudden death in any stage of their existence, as Ericas and many other things are, at all periods of their growth. Here let me say, however, that when I order a plant of a new variety of Azalea, I am not inclined to expect a half specimen, and that, provided it is properly propagated, healthy and vigorous, I care very little about the size of the plant, and I should hardly feel dissatisfied at receiving a grafted plant, with the graft only just fairly united, if this was a moderately strong shoot, and the stock of the right kind, and young and well rooted, without having or ever having had its roots cramped up in a small pot. Nor in the case of plants rooted from cuttings do I care about size, and would greatly prefer to receive a strong cutting barely established in a small pot, to some which I have received with from six to a dozen

points. But the majority of the new sorts which I have purchased during the last half-a-dozen years have come to hand in anything but a satisfactory state, many of them looked as if they had been propagated from overworked plants, and had neither health nor vigour in them; and from such plants no real progress can be expected for one season at least; and some for which I have paid a long price have been so weakly, that I could not for months obtain from them a graft which I dared venture to work upon a free stock; and then some have come to hand upon their own roots which are unfit in this state for those who desire to grow them into good sized specimens; and I should like to ascertain, six years hence, the proportions that will exist between the fine seven years old specimens of Queen of the Whites, and the number of plants of it sold last year; this, judged by the appearance of such of the original plants as I have seen, is a very weakly growing variety, and would, to say the least, be greatly improved in habit by being worked upon a free vigorous stock; and this is but one instance out of many which I have met with of sorts being sent out in plants rooted from cuttings, and these evidently from overworked ill-conditioned plants, which ought to have been grafted. But I have also received grafted plants which did their propagator very little credit, and gave me as little satisfaction. One received this season, a new variety, and at a long price, was small and very weakly when it came to hand, but was worked upon a stock which appeared strong, and I concluded that kind treatment would soon effect a very marked change. Months passed over, however, and the plant remained much as when I took it in hand. I turned it out of its pot—not a root to be seen—broke up the ball almost entirely, but did not meet with anything like a live or active root. I learnt, however, that the stock had been kept in a thumb pot until its roots had perished—then had been shifted, in the hope doubtless that it would some day take to the fresh soil thus kindly offered it, and this I received from one of our leading nurseries, where, I have no doubt, they know much more about the propagation of Azaleas than I do; and this is not the only grafted Azalea which I have received from the same great manufactory which has proved unsatisfactory. I have one plant, received some years since, about the progress of which I have always been particularly anxious, but which I have never been able to get to make more than a very moderate growth, and this season it has thrown out a shoot below the graft, and I fear this will prove the stock to be what an honest intelligent propagator would not have used. And I have in my small collection several plants besides this grafted upon stocks which do not improve their growth, and which are not likely to last longer than the plants would have done upon their own roots, and these are what have been sent when I ordered worked plants, and are from various parties.

But I think I have said enough to prove that Azaleas are often sent out in plants propagated apparently without any regard to the future of the plant, some being sent out in plants rooted from cuttings, which ought, in common fairness to the grower, to be worked, and others worked upon varieties which ought not to be used for this purpose. That this may be of very little consequence to many growers I allow,

for some are always prepared to propagate afresh by grafting on a strong vigorous stock any plant which they may receive in an unpromising state, and others merely want plants for decorative purposes, and hardly care whether a plant grows vigorously or otherwise, provided it blooms freely. But I have no hesitation in saying that the great majority of buyers would greatly prefer plants propagated in the best manner known to the trade. In the case of new sorts, there can be no question that experienced growers would choose, even in instances where the variety may be of a free vigorous habit, worked plants in preference to those upon their own roots; and, as parties sending out new sorts seldom if ever have had a variety long enough in their possession to know whether it is safe to last upon its own roots or to grow freely in this state, it seems to me that all new sorts should be supplied in worked plants only. The expense of getting up a stock of worked plants would certainly be something more than the same number upon their own roots would cost, but those who prefer a good article are generally willing to pay a fair price for it, and I think this could hardly merit notice; and, with the assistance of your work, I hope that we shall, in a year or two, find that all new Azaleas will be sent us in nice, free, promising little plants, worked upon Phœnicea, and this young and well, but not over-rooted for its pot room.

But while I would esteem being able to procure all the new varieties in such plants as I have indicated as a great step in the right direction, I would still desire to see a further change in the present method of propagating the general stock of Azaleas; for experienced growers know that many of the best varieties in cultivation are liable to die through a decay of the bark about the collar, and I believe it would be more difficult to prove that any of our favourite varieties are safe not to drop off in this manner than that a great proportion of them are liable to do so. My experience has, as compared with that of many, been comparatively limited, but I have seen and known of a goodly number of valuable plants go off in this way, and some of them such as did not require working to make them grow freely; and, so far as I can judge, some of those which are of the freest and strongest habit of growth are just as subject to die prematurely as weaker growers. But I have never yet seen a Phœnicea, nor a specimen of any variety worked upon a Phœnicea die in this way, and I believe I have used plants of this variety so as to make them furnish tolerable proof that it is not subject to this malady, and I have also been unable to meet with anyone among my friends who has ever known a Phœnicea go off in the way which other varieties do. Now, if this ensuring the plant to live, with ordinary care, as long as ever it may be worth keeping, was all the advantage gained by having worked plants, it ought, I think, to induce the trade to make the practice more general than they have yet done, for it is anything but pleasant to lose a good sized specimen, and have to reflect that if it had been worked upon a proper stock, the misfortune would not have happened.

But it is also well known that many of the finest varieties in cultivation are greatly improved in habit by being grafted. Some growers assert that training the plants with clear stems for some height above

the soil prevents their going off in this way, and I saw, some time ago, one of your contemporaries lending the sanction and currency of its columns to this fancy. It is, undoubtedly, proper that Azaleas as well as other hard-wooded plants should have the collar fairly clear of the soil, and that no branches should be allowed to issue for an inch or two above this, and this whether grafted or on their own roots. But how any person can conceive why long bare stems can render the part where the mischief invariably occurs any less liable to decay, I cannot imagine. At all events, I have ample evidence that it does not, and I think I may safely say that the only certain preventive is grafting upon a proper stock. But if all this is correct, it certainly is time that buyers should be able to procure worked plants of any variety when they order it in this state, and this from any nurseryman offering the variety, and I hope this will soon be the case. I would not, however, be understood as wishing to insinuate that because most or all of the really good varieties of the Azalea do better grafted upon *Phœnicea* than on their own roots, nurserymen should propagate all their stock in this way. All that I wish is that myself and others, who prefer grafted plants, should be able to procure them from any party offering the varieties; and that when a nurseryman receives an order for plants of varieties which are known to do better grafted than upon their own roots, worked plants should be sent, and that the practice of using for stocks any free growing variety which may be most plentiful should be discontinued, and only *Phœnicea* or some other equally suitable variety, if such exists, used for this purpose. There must be a demand for the class of plants which are sold at 12s. per dozen, otherwise they would not be so frequently advertised as they are, and, whilst these are called for, there can be no reason why the trade should not supply them. But there can, I think, be as little cause why those who are willing to give the price demanded should not be supplied with well propagated promising plants, such as would give satisfaction to the buyer and do credit to the seller.

As to new varieties, I shall buy no more importations from the continent unless they are recommended by some one besides the parties offering them for sale. And now that the Horticultural Society has formed a floral committee on a basis sufficiently broad and liberal to ensure for its awards the confidence of the public, and which will meet sufficiently often to afford the holders of new plants an opportunity of submitting to the judgment of competent censors such as may bloom when they cannot be shown at any of the great exhibitions, I hope there will henceforth be such a small demand for varieties offered, with no other character than that given them by their owners, as will, despite the power of advertising, speedily extinguish this portion of the trade; at all events, I shall buy only such varieties as may have the commendation of some competent and independent authority, and I think I shall run but little risk of missing anything worth having.

S. KIMBALLEON.

THE MANETTI ROSE STOCK.

I ALWAYS feel interested in this stock. Whether it is that, being an old amateur, and remembering well its introduction, or only because it has been abused by some few growers, and praised by others, I cannot say. Friend Donald Beaton has now and then given it a severe prog with his "Cottage Gardener's" dagger; he has now, however, turned round, and in the "Cottage Gardener" of December 20, 1859, has given a flattering opinion of its value; but then Donald is young, and may turn round again.

Mr. W. Paul has always been its bitter and most unrelenting enemy. It seems that the strong tenacious clay of the Cheshunt nursery did not suit it. It killed the Roses budded on it by its excessive vigour. Instead, however, of looking out for a plot of light soil, on which it would have flourished, Mr. W. P. denounced it, and has suffered his near neighbour and rival, Mr. E. P. Francis, of Hertford, to make a fortune by its cultivation.

" Strange that such difference should be,
'Twixt E. P. F. and W. P."

Now the soil at Hertford, in which Mr. F. cultivates his Roses on this stock, is the most heart-breaking, stony, barbarous soil that was ever formed into a Rose-garden. Just imagine a few acres of a stratum of gravel laid bare, with stones in it innumerable as big as your foot; stir the surface, pick out the very large stones, add some manure, and you have the soil on which our friend E. P. F. grows his Roses on the Manetti Rose stock, or, as Mr. W. Paul calls it, in his "Rose Annual," page 85, line 20 (I like to be particular) the "Manettii bubble." Why the two ii's? And why the prejudice? Does the latter owe its origin to the stock having been introduced by our "King of Roses," Mr. Rivers, who has written the only good and selling book on Roses ever published in England? No, it cannot be; but there certainly must be some cause for this continued denunciation of a Rose stock most valuable, for it seems to flourish as well in the sands of Yorkshire and Durham as it does in those on the south coast from Folkestone to Beechy Head, and has become an article of commerce; for so well does it suit the climate of the United States, that some hundreds of thousands have been and are annually exported. I am inclined to distrust what is said in the "Cottage Gardener," p. 172, about grafts on this stock putting forth roots. In heavy soils they will not always do so, and some varieties are also very chary of putting out roots, even in very light soils, but then such soils suit the stock so well that the graft has no need of its own roots.

In rich deep Rose clays, by which I mean all clayey soils with a deep staple, the Dog Rose stock is on the whole the best of all. It is very durable, may be removed at almost any period of its life, and generally induces the kind of Rose budded on it to throw out flowers of the largest size. But for poor sandy soils or gravelly hills like those break-heart, break-neck hills round Hertford, no Rose stock can excel the Manetti. I should, however, prefer budded Roses to those that are grafted, and

plant them so as to cover the junction of the bud with the stock. I have reason to believe that Mr. Lane, of Berkhamstead, has not succeeded well with the Manetti stock. He, I think, tried it on his light but low-lying black soil, and on a very shallow soil resting on chalk, but in neither situation did it do well, so he has discontinued, as far as I know, its cultivation to any great extent. Mr. L. has not however, like his friend Mr. W. P., denounced it because he could not grow it. No, he is much too 'cute for that. I fully believe that it would have done well on those chalk hills near Berkhamstead, only the labourers did not like it, and so often gave it a sly kick; besides this, the Dog Rose stock has generally done so well with Mr. L, that he did not want it. With Mr. Francis it has been quite different. I fully believe that he never could have grown any decent dwarf Roses on his stony hills without the Manetti Rose stock.

Like all things newly introduced either into commerce, agriculture, or horticulture, our Manetti stock has had, and still has, its opponents. Some of them should always bear in mind part of the old song—

“Remember when the judgment's weak the prejudice is strong.”

And they will plant it only in soils adapted to it, and, above all, take pains in its culture.

ROSA SPINOSA.

THE DAHLIAS OF 1859.

THE varieties sent out last spring have no doubt taken their places, and have been approved or condemned, according to their merits, by those who grew them. Yet, as there are many who do not add new varieties to their collections before the second season, a summary of the best, as they appeared to us from growing several plants of a kind, may be useful to those who have not seen much of them at the exhibitions, or growing.

Generally, 1859 was a good season for Dahlias, and a long one, therefore any good qualities they might possess could be ascertained. Of selfs we shall retain ten only, at the head of which stands the best Dahlia of any year, namely Chairman, which is a magnificent show flower. The others are Emperor, Golden Drop, Charles Waters, John Dory, Pioneer, Disraeli, Mentor, Lord Eversley, and Rosebud. In fancies seven may be grown again. They are Comus, The Flirt, Mrs. Charles Kean, Jessie, Leonora, Dandy (rather small), and Madame Alboni, good form, but scarcely sufficient tip to make it effective. From the continent not one has appeared in 1859, self or fancy, that can be introduced to a select collection. Triomphe de Pecq, however, of 1858, maintains its position as the finest dark Dahlia. It is late in blooming, but very true in character. One of the best stands of 24 we saw staged for competition in 1859 was at Reading. This collection contained five of the new varieties above named, viz, Emperor, Mentor, Pioneer, Lord Eversley, and Chairman. There were also seven seedlings, which we shall most likely have to notice in a future number.

These were Enchantress, Flower of the Day, Lady Taunton, Gladiator, Mrs. Col. Vyse, George Elliott, and Scant. The remaining twelve were old kinds of several seasons, the oldest being Robert Bruce, sent out in 1854. The rest were Col. Windham, Mrs. Church, King, Mrs. Trotter, Village Gem, Sir J. Paxton, Lord Cardigan, Cherub, Lord Fielding, Lady Franklin, and Lady Popham.

The number of good seedlings that came under our notice last autumn was above the average.

SOILS, FRUITS, AND MANURES.

THE ever varying nature of the soil which forms the surface of the earth is one among thousands of other evidences of the all-wise Creator for supplying a suitable pabulum for the growth of the vegetable kingdom. The disintegration and decomposition of underlying rocks in some instances form the only soil, but a much larger area of surface soil is the result of deposition, and may differ widely in composition from the stratum which it overlies.

The examination of the soil from various parts of the globe shew that, as regards their component parts, they do not materially differ from each other—all consist of 8 or 10 ingredients, the great bulk of which, however, is composed of alumina, silex, lime, and organic matter; and it is in proportion as these vary in their composition that soils are termed *clayey*, *sandy*, *calcareous*, or *peaty*, names sufficiently explicit for our present purpose, but the many modifications in which these are met with are too numerous to be mentioned here. We may, however, add that a due admixture of sand, clay, lime, and organic matter, is indispensable for forming a fertile soil, which in addition should also contain the phosphates and alkalies necessary for furnishing vegetation with a portion of their inorganic food.

The mechanical composition of soil is of the greatest importance to the cultivator. Soils which contain too much clay are so far impervious to the action of atmospheric agency as to be ill suited for the growth of plants until their cohesive particles are broken up and divided by exposure to the atmosphere. To such soils the addition of any mineral substances which will keep the clayey particles from again uniting after disintegration are of the highest value, as they permit the passage of water through the soil, and admit also the air to follow—an important agent in liberating the pent-up gases, and thereby effecting new combinations forming *plant food*. It must be obvious from this that the more frequently soils which contain clay in excess (clayey and heavy loams) are turned over and exposed to the atmosphere, the more fertile they will become, and the knowledge of this furnishes us with the best means of cultivating heavy soils. On the contrary, soils containing too much sand suffer from the opposite law—the rains pass through them too quickly, hence they frequently suffer from drought; and the ease with which the roots of plants penetrate such soil, and the facility they afford to the action of the atmosphere, cause a rapid

development and abstraction of the *plant food*; hence the rapid growth of vegetation on such soils, while supplied with moisture, and their quick exhaustion of the supplies for vegetable growth. Such soils require very frequent manurings, and less working than heavier soils; and the best of all dressings for them are clays, marls, and calcareous matter generally.

Calcareous soils are most generally met with in the chalk and oolitic districts. Here lime is in excess, and the application of organic manures and dressings of any composts not abounding in lime will produce a favourable effect. Calcareous soils rarely burn or dry up in hot weather, and are admirably adapted, when of sufficient depth, and contain a certain quantity of clay in their composition, for the growth of many kinds of plants. Taken as a rule, plants thriving on calcareous soils refuse to grow on peat soils, and *vice versa*.

Peaty soils consist of peat proper and bog soils. Peats and bog earths differ but little in composition; both are composed of organic matter formed by the gradual decay of mosses and other minute forms of vegetation, which in the case of bog earth has consisted also of aquatic plants; peaty soils, generally speaking, are not very fertile for general purposes; their composition is too light and spongy for large rooted plants, and to fit them for the purposes of gardening (except for the growth of their own peculiar class of plants), they require dressing with clay, marl, or other heavy composts. Lime is of the greatest use to peat soils, in promoting the decomposition of the woody fibre, and in neutralising certain acids largely intermixed with peat soils.

The above brief sketch of the principal divisions of soils will show our readers the general features of their characters, and enable amateurs and non-professionals to judge in some measure for themselves of the nature of the soils with which they may have to deal.

The soil most conducive to the health and productiveness of fruit trees is unquestionably one containing a certain proportion of clay and calcareous matter, and mixed with other ingredients to keep it mechanically open. The Herefordshire orchards, where the finest Apple and Pear trees in this country are to be met with, are principally situated on soils composed of the decomposed marl stones of the old red sandstone; or in other words, the soil consists of clay and lime, mixed with a friable stony shale, which gives it drainage, besides adding fertility by its slow decomposition. The marly loams of the new red sandstone are very favourable for fruit trees; and as we know these consist of clay, sand, and a small per centage of the carbonates and sulphates of lime, we may consider soils containing the latter ingredients, when not in excess, favourable for fruit trees generally. True calcareous soils, not positively overdone with chalk, produce good fruits, particularly when of sufficient depth. Many of the soils overlying the chalk are clayey in their nature, and when there is a sufficient admixture of lime and other matter in them to effect a drainage, they constitute some of the best soils for fruits. Many parts of Middlesex, Essex, Sussex, and Hampshire may be adduced as evidences of this. The vast tract of country devoted to orchards in the department of Normandy and other parts of France are all on soils of this description, on which the Apple and Pear attain a very large size and great longevity. The soil in

places is of great depth and marly in texture, and the growth of the trees shows that it is admirably adapted for fruit culture. The Apple, Pear, Peach, and Apricot may be called heavy soil plants, in the order in which we have placed them. The Plum will bear a wider application of soil than other kinds, while the Cherry prefers one more sandy, or where the drainage powers of the soil are more complete.

(To be continued.)

THE ROSES OF 1859.

How times are changed ! One used to say, some years ago, to a brother Rose lover, "Have you heard if Laffay has brought out a good Rose this year, or Desprez ?" and then perhaps the reply would be "Oh yes! you must get that wonderfully fine Rose of Laffay's, Dr. Marx, and Baronne Prevost of Desprez ;" and so it went on from year to year—a few very fine and distinct Roses now and then making their appearance, their advent only known to the "upper ten." The contrast is so great at the present day that it seems scarcely credible. In the autumn of 1858, the French Rose growers sent out for the first time about 70 varieties, all with new names but not all with new features. In this list of "threescore-and-ten" we have 40 kinds of Hybrid Perpetuals, four of Damask Perpetuals, 12 of Bourbons, 10 of Tea-scented, two of Noisettes, one China, and two summer Moss Roses. In this list are doubtless many really fine Roses, although not differing to the extent one would wish from the varieties we already possess. Judgment must, however, be suspended, to a certain extent, till next season, for our poor new Rose is dreadfully tortured before she shines in England in her full beauty. Let us look at the "modus operandi." She (*i.e.* a Rose-tree of a new kind) is sent over to England about the middle of November. If her master to whom she is consigned is merciful, she is planted in a favourable border, and suffered to bloom there the following season, as well as her torn roots and long exposure on her journey will allow her, and she will perhaps give flowers approaching in beauty to their real character. But if her master is a new man, anxious about propagation, woe be to her ; she is crammed into a pot, placed in a forcing-house ; all her shoots are cut, or rather shaved off closely, and she is forced unnaturally into putting forth leaves and shoots at Christmas. The shoots cut off are immediately cut up into single buds, and at once grafted on that "bubble,"* the Manetti Rose stock. The young shoots in February from the original trees are also grafted on the "bubble ;" even the tops of the young grafts are in the spring transferred to the "bubble ;" so that a large number of young plants are produced, but the character of the Rose is not brought out. This must be waited for ; so that, in reality, the Roses introduced in the autumn of 1858 and propagated in 1859, will not show themselves to perfection till 1860.

* *Vide* Mr. William Paul's "Rose Annual."

I regret that I cannot usher in the description of any new *Rose* with such a pleasant grandiloquent platitude as is now under my eye, applying to *Rose catalogues*, and which begins—"One by one the autumn catalogues come dropping in; some in a summer's dress, through which the mysterious type peers dimly, emblematic"—I should say of £ s. d. I must not, however, ramble in this way, but return to our "brood," to borrow a term of the new *Roses* that bloomed in England for the first time in 1859.

The "Géant" seems to have been in France; a very good kind to breed from, for nearly all the dark crimson *Roses* recently raised are of his race. It is strange that although pecks of seed from the Géant and General Jacqueminot have been sown in England, not a single Hybrid Perpetual *Rose* has yet been raised worthy of a name. There seems a want of "vital force" in the seed, for those grand hips that Jules Margottin gave in 1856, 7, and 8—full of perfect seed—ought to have produced some fine *Roses*.

Among the deep crimson *Roses* are Comte de Beaufort, which has not yet shown well, and four from M. Trouillard of Angers, viz., Dr. Brettonneau, Francis I., Francois Arago, and Eugene Appert. The three first are dwarf growing kinds, with flowers of the deepest crimson shaded with purple, all very double but not large; the latter has a more vigorous habit, and, if judged after the figure of it given by Mr. Andrews in the *Florist* for August last, is of the most wonderfully brilliant scarlet. I do not mean to assert that it is not after nature, but it is just one of those blooms that nature rarely gives, for although a very pretty rose, its scarlet petals are mixed with dark crimson, or at least generally so. There are several other dark crimson *Roses*, nearly all really nice varieties, such as Emperor of Morocco (Empereur de Maroc)—we must, I think, now try to make into English all that we can of the French names given to *Roses*—Altesse Imperiale, Mount Vesuvius (Le Mont Vesuve), Lord Elgin, Ambroise Verschaffelt, and Ardoissée de Lyon or the Slaty Rose, the ugliest of all colours in a *Rose*. The first of these is a truly magnificent variety, of deep blackish crimson, very rich, its flowers are also of a good size, very full, and finely shaped; the second variety is also a *Rose* of great beauty, with smaller flowers very regularly formed, and of a rich crimson; Lord Elgin is also a very pretty dwarf dark crimson *Rose*—quite worthy of a place in our gardens if only for its well-chosen name. Anna Alexieff and Armide are said to be rose coloured tinted with salmon—the latter colour has not yet been very apparent. Two nice and very bright rose-coloured *Roses* are Anna de Diesbach, raised by Mr. Lacharme of Lyons, and Cecile de Chabrillan—Comtesse Cecile de Chabrillan, according to its raiser, M. Marest, and Cecile de Chebriana according to some catalogues. This is really a most beautiful bright pink *Rose*, not too full, and with an elegant cup. Oriflamme de St. Louis and Mignard are two seedlings said to have been raised from that beautiful *Rose*, General Jacqueminot; the former is a most robust grower, and it will doubtless form a vigorous growing pillar *Rose*—it has not, however, yet bloomed in anything like perfection—its colour has not been "éblouissant," as described, but of a dullish red; the latter, of a bright rose colour, has not yet shown any remarkable quality.

There are some pale or flesh-coloured Roses, not likely to eclipse Madame Vidot and Madame Rivers, but still interesting to the amateur who likes to possess everything in Roses. Among these the best are Imperatrice Eugenie, making no less than four Roses bearing the name (viz., one Tea-scented, a poor Rose; one Bourbon, and one Perpetual Moss), Madame Bruny, Madame Jenny Varin, and Mathilde de Mandeville.

There are some 10 to 15 Roses described by the French growers as "rose vif" (bright rose), some of which may be worthy of a trial, but they have not yet shown any remarkable qualities.

There are two Mademoiselles (how shall we English that name? *Miss* will not do, it is so near *mess*), Betsy Haiman, "ponceau vif," which has not yet shown its Poppy colour, and Marie Boyer, in the same not-shown category.

One of the most distinct Roses of this season is Virginal, which really is of a pure white, but with rather jagged petals and want of fulness. No white autumnal Rose as yet approached in beauty the Bourbon Rose, Acidalie, when blooming in a warm autumn. Good new Roses, among the Tea-scented, are excessively rare; there were ten varieties introduced in the autumn of 1858. Among these, Homer deserves the first place; it is apparently a seedling from my favourite Acidalie, with much the same habit, and with large, very double, and finely cupped flowers of nearly pure white, very slightly tinted with pale rose; its perfume is very grateful. Madame Damaizin, Madame Falcot, and Madame Halphin, are three pretty Roses, tinted with salmon and fawn colour; they are perhaps lacking in fulness and shape, but another season may tell a different tale. The new rose-coloured Roses of this family are not worth naming. A Tea-scented Rose to surpass Adam and Souvenir d'un Ami must be something *very* extraordinary.

There were twelve new Bourbon Roses ushered into the Rose world last autumn, among which Dr. Berthot, crimson; Comtesse de Bourbonnane, Octavie Fontaine, and Madame Marechal, all pale flesh-coloured Roses, may be worthy of culture, but there is nothing new in any of them. Alas! that the day is past; "once upon a time" how we hailed a new crimson Bourbon Rose. They are still beautiful, and often most beautiful in autumn; but their equals in colour and superiors in perfume, the Hybrid Perpetuals, have placed them in the rear ranks of the Rose garden.

Noisette Roses have received no additions from France worth naming, but from America we have two—Jane Hardy, which will be found very hard in the bud, and "America," said to be a new yellow vigorous growing Rose, quite surpassing any yellow Rose yet seen (Cloth of Gold, clearly forgotten by our cousins), and to be most free in blooming, most hardy, and most wonderful; all which we shall believe "when we see what we shall see."

PRINCE NOIR.

FLORAL COMMITTEE OF THE HORTICULTURAL SOCIETY.

SOME time since we called attention to the formation of this Committee in connexion with the Horticultural Society, and find from experience that it has filled the void then felt by raisers and importers of new plants. The meetings being continuous and regular throughout the year, few plants can bloom without the opportunity of placing them before the public, through the Committee, and their value as new and decorative plants is decided on by competent persons. This enhances the value of a good thing, and is at the same time a protection to the public. As a summary of the proceedings of the Committee up to the present time, we have classified the subjects, giving Hollyhocks and Dahlias in the present number, only enumerating those successful. Two classes of awards are given, first class certificates and kinds commended. Yet many meritorious productions have to be passed, from the fact of their being not sufficiently dissimilar, or not produced in sufficiently good condition for the members of the Committee to be certain of their merits, for which purpose it is desired to see them again under more favourable circumstances.

As soon as the days of meeting for 1860 are fixed we shall announce them to our readers.

The Hollyhocks that received First Class Certificates were—

- Leonora (Chater), a bold well-filled flower, with fine guard petals, mottled rose shaded with fawn colour
- Brunette (Paul), a large full bold variety, dark crimson, remarkable for the smoothness of its petals

The following were Commended :

- Perfection (Paul), mottled pale lilac, rather small but very globular, the guard petals small
- Harriet (Chater), a soft lilac with a mauve tint, rather thin in texture, guard petals moderately developed
- Warrior (Chater), bright vivid crimson, fine guard petals, and a well formed full flower
- Joshua Clarke (Chater), crimson, large and very full. The cut flowers of this were so very fine that it was thought it might have received a first class award if a spike of bloom had been shown
- Exhibitor (Chater), bright rose, large and full
- Novelty (Chater), one of the mottled class, the ground being dull purple crimson, and the light parts mottled and edged with blush
- Countess Dowager Jane Somers (Chater), canary yellow
- Alfred (Chater), full size, with good average guard petals and high centre, pale purple
- Miss Shenton (Shenton), a white of average quality

Dahlias which received First Class Certificates were—

- Miss Sarah Boyd (Rawlings), white, finely tipped with purple, medium size, neatly cupped, and of good outline
- Lady Douglass Pennant (Keynes), large, deep, finely moulded, and even, primrose yellow
- William Dodds (Keynes), large, deep, and well built, with a close high centre, deep golden yellow
- Flower of the Day (Turner), a high built and evenly formed full flower of excellent properties, pure white, much resembling Mrs. Wellesley Pigott, but a purer white

- Apollo (Turner), a dense well-formed and remarkably symmetrical variety of the fancy class, purplish crimson, distinctly and regularly tipped with white
- Mrs. Wellesley Pigott (Keynes), a neatly cupped and even well-filled flower of excellent proportions, white, slightly tinged with yellow at the base of the florets
- Mrs. Bailhasche (Keynes), full size, close, with full high centre, pale peach blossoms or deep flesh colour
- Neville Keynes (Keynes), buff yellow, faintly tipped with pale purple; it proves to be a remarkably constant and useful flower
- Beauty (Turner), an evenly built and compact flower of a distinct peachy blush colour, paler towards the centre, and yellowish at the base of the florets

The following were commended :—

- Rev. John Dix (Keynes), a fancy flower of large size and good outline, with a prominent high centre, blush striped and spotted with dark crimson
- Sir George Douglass (Dodds), a very effective and ornamental variety for the flower garden, of moderate properties, colour orange yellow tipped with bright red
- Mrs. Col. Vyse (Turner), large, deep, and regular, with admirably arranged florets, but rather low and deficient in the centre, blush white tipped with purplish lake
- Splendid (Green), a fancy variety of good average form and well filled, pale lilac blush, striped and spotted with bright deep crimson
- George Grapes (Turner), a flower of good properties, yellowish buff or maize colour suffused with salmony red
- Pluto (Turner), a richly coloured fancy flower in the style of Jupiter, crimson maroon passing to crimson, and unequally tipped with white
- George Eliot (Turner), a distinct bright rosy purple, the flower being in other respects of average properties
- Compacta (Rawlings), lilac blush tipped with purple

NEW PLANTS OF 1859.

THE following list, abridged from "Hogg's Year Book for 1860," enumerates some of the more important new plants which have come particularly under notice during the past year :—

- ACER POLYMORPHUM PAMATUM ATRO-PURPUREUM.** (*Flore de Serres*, 1273). Aceraceæ. Hardy tree; leaves deeply palmate-lobed; dark purplish red. Introduced to the Belgian gardens from Japan by *Dr. Siebold*.
- ÆOLLANTHUS LIVINGSTONII.** Labiatae. Stove plant, with the habit of *Angelonia*, and related to *Plectranthus*; flowers chocolate-coloured, borne freely in terminal spikes. Collected in Eastern Africa by *Dr. Livingstone*. *Messrs. Rollisson & Sons*.
- ÆSCHYNANTHUS CORDIFOLIUS.** (*Bot. Mag.* 5131.) Cyrtandraceæ. A beautiful stove epiphyte, resembling *Æ. tricolor*; branches pendent; leaves glabrous, cordate-ovate; flowers axillary, short, broad, crimson scarlet, marked on the face with streaks of black, and stained about the throat with yellow. Java. *Messrs. Veitch & Son*.
- ÆSCULUS INDICA.** (*Bot. Mag.* 5117). Hippocastaneæ. An ornamental hardy tree, of the *Pavia* group; leaflets broad, lanceolate, serrated; flowers in large terminal thyrsoid panicles, white, the two lateral petals pink-stained at the base, the two upper ones marked there with yellow and crimson. Mountains of Northern India. The tree is quite hardy in our climate, and has been flowered by *Sir H. E. Bunbury, Bart.*, at *Mildenhall*.
- ALLAMANDA VIOLACEA.** Apocynaceæ. A beautiful climbing stove shrub, which has not, we believe, flowered in England; but *Dr. Gardner*, who found it

describes the blossoms as of a violet-purple colour, and compares them to those of *Gloxinia speciosa*. Brazil. *Messrs. E. G. Henderson & Son*.

ALSTROMERIA ARGENTO-VITTATA. (*L'Illust. Hort.* 192). Amaryllidaceæ. A fine greenhouse or frame perennial; leaves oblong-lanceolate, marked with a broad white central band; flowers scarlet, the interior with dark red lines on yellow. Brazil. *M. Verschaffelt*.

AMYGDALUS PERSICA v. ROSÆFLORA. Drupaceæ. One of the best varieties of the double-flowered Peaches. A charming addition to early-blooming hardy shrubs, the leafless branches in spring being gay with large, showy, loosely double flowers, of a deep rich rose colour. China. Introduced by Mr. Fortune; flowered by Mr. Glendinning.

AUCUBA HIMALAICA. (*Flore des Serres*, 1271; *L'Illust. Hort.* 197). Cornaceæ. A fine, distinct, hardy evergreen shrub, likely to prove ornamental; leaves lance-shaped, shining deep green, with a few distant white-tipped teeth; flowers purplish green, followed by oblong orange-coloured berries. Himalaya. *Messrs. E. G. Henderson & Son*.

BERBERIS HOOKERII. (*L'Illust. Hort.* 207). Berberidaceæ. A handsome dwarf hardy shrub; branches slender; leaves oblong-lanceolate, spiny-toothed; flowers large, axillary, pale yellow, umbellate, on nodding peduncles. *M. Verschaffelt*.

BERBERIS JAMESONII. (*L'Illust. Hort.* 201). A fine hardy or half-hardy shrub; branches elongate; leaves oval or oval-oblong, undulate, spiny, holly-like, in fascicles; flowers numerous, large, yellow, in terminal, pendulous, fasciculate panicles. *M. Verschaffelt*.

BÆHMERIA ARGENTEA. Urticaceæ. A free-growing cool stove shrub; leaves large, elliptic obovate, acuminate, lively green in the centre and along the course of the principal veins, marked between with blotches of silvery gray. Chiapas. *M. Linden*.

BOSSIA PAUCIFOLIA. Leguminosæ. A neat greenhouse evergreen shrub; leaves small; flowers profuse, bright orange and crimson. Australia. *Messrs. E. G. Henderson & Son*.

BRACHYCHITON BIDWILLII. (*Bot. Mag.* 5133). Sterculiaceæ. A very remarkable stove shrub, rising from a large tuberous root; leaves cordate, deeply three-lobed; flowers axillary, in dense sessile heads, the showy part consisting of the palish red, bell-shaped, downy calyx, which is more than an inch long. N. E. Australia. *Kew*.

CALLICARPA PURPUREA. (*Illust. Bouq.* 29, fig. 2; *L'Illust. Hort.* 202). Verbenaceæ. A pretty greenhouse shrub; leaves elliptic-lanceolate; cymes axillary; the numerous small pinkish flowers succeeded by reddish-purple berries, which give the plant an ornamental character in the winter months. China. *Mr. Standish*.

CALLIRHOE DIGITATA. Malvaceæ. A fine border biennial, much branched, and flowering early, as well as through the summer; flowers rich rosy purple, with a white eye. Texas. *Messrs. Carter*.

CEANOTHUS VEITCHIANUS. (*Bot. Mag.* 5127). Rhamnaceæ. A magnificent acquisition to hardy evergreen shrubs; leaves obovate-cuneate, smooth, deep green, with glandular serratures; flowers in roundish-oblong heads, forming crowded masses at the ends of the branches, deep rich mazarine blue. California. *Messrs. Veitch*.

CENTRADENIA GRANDIFOLIA. (*Hort. Lind.* 4). Melastomaceæ. A pretty sub-shrubby stove plant; stems angular-winged; leaves opposite, oblong-lanceolate, acuminate, laterally curved, purple beneath, one in each pair being six inches or more in length, the other minute; flowers lively rose colour, in terminal corymbs. Mexico. *M. Linden*.

CHAMÆTIA FOLIOLOSA. (*Gard. Chron.* 1859, 652). Rosaceæ. A pretty hardy evergreen shrub, with foliage like a Mimosa. The plant grows two to three feet high, branched, compact, and erect; leaves broadly ovate in outline, fern-like, tripinnately dissected; leaflets numerous, small, oval, hispidulous; flowers white, Rubus-like. The foliage is exceedingly elegant, and has, when rubbed, a strong, resinous, Cistus-like odour. It will prove an acquisition among dwarf hardy evergreens. California. *Messrs. Veitch & Son*.

CLARKIA PULCHELLA v. INTEGRIPETALA. Onograceæ. A handsome purple-

- flowered annual, differing from the old *Clarkia pulchella* in having the petals broad and entire, instead of being cut into narrow segments; it is consequently more showy. A garden variety. *Messrs. Carter & Co.*
- CLEMATIS VITICELLA v. VENOSA.** Ranunculaceæ. A hardy, climbing, flowering shrub of great beauty. The flowers are nearly four inches in diameter, of a rich purple colour; each petal is veined with crimson, having a red crimson-tipped ray running from the base to the apex. The white styles are tipped with purple. Continues in bloom all the summer and until late in autumn. *Messrs. E. G. Henderson.*
- CORDYLIN INDIVISA.** (*Gard. Chron.* 1869, 868). Liliaceæ & Asparagineæ. A fine greenhouse Yucca-like plant, with a stout, erect, undivided stem, supporting a head of long leaves, resembling those of *Yucca aloifolia* in shape, but thinner, their colour a golden bronzy green, the mid-rib broad and prominent near the base of a tolerable crimson hue, and very conspicuous; inflorescence a dense oblong-panicked spike, the branches curving gracefully upwards; flowers small, white, bell-shaped. New Zealand. *Messrs. Lee.* The garden *Dracæna indivisa* is, according to Dr. Hooker, *Cordylina australis*.
- DATURA CHLORANTHA.** (*Bot. Mag.* 5128). Solanaceæ. A very handsome double-flowered *Datura*, with the habit of *D. arborea*; leaves ovate, subtriangular, sinuately-toothed; flowers showy, double, tubular, yellow, sweet-scented. Sent from the Adelaide Botanic Garden to *Messrs. Henderson & Co.*, as "a double yellow *Datura*, sweet-scented, of a low, spreading habit, producing its flowers seven to eight through the twelve months." The plant seems to have been sent by Dr. Wallich to Syon many years ago, so that it is probably a native of India.
- DATURA METELOIDES.** (*Flore des Serres*, 1266). A handsome perennial, known in gardens as *Datura Wrightii*; leaves ovate-oblong, nearly entire; flowers large, French white, sweet-scented. Mexico and California.
- DENDROMECON RIGIDUM.** (*Bot. Mag.* 5734). Papaveraceæ. A Poppy with woody stem and branches, quite hardy, and a really handsome plant for summer flowering; a small shrub; leaves lance-shaped, glaucous; flowers solitary, terminal, two inches across, bright yellow. Introduced from California by *Messrs. Veitch & Son.*
- DIANTHUS SINENSIS v. HEDDEWIGII.** (*Flore des Serres*, 1288, 1296-7; *Illust. Bouq.* 33). Caryophyllaceæ. This name represents a charming new race of Indian Pinks, with gigantic flowers of various colours from rich deep crimson to pale pink, sometimes striped, blotched, or mottled with white; leaves broad, linear, bluish green; flowers profuse, from forty to sixty being borne by a single plant, large, two and a half to three inches in diameter. This new race of Japanese Indian Pinks, remarkable for the large size of their flowers, and their richly-varied colours, will be highly ornamental for flower garden decoration. The variety called *D. sinensis giganteus* is not sufficiently or permanently distinct. Japan. Introduced by Mr. Heddewig, of St. Petersburg.
- DIANTHUS SINENSIS v. LACINIATUS** (*Flore des Serres*, 1289). This is evidently related to *D. Heddewigii*; flowers equally large; the petals narrower, and split at the ends into long narrow segments, so that the flowers are more fringed. It varies much in colour, and also in producing single and double flowers—white, blush, lilac, rose, carmine, purple, violet, and maroon, self striped or spotted.
- DIANTHUS VERSCHAFFELTII.** (*L'Illust. Hort.* 220). A beautiful dwarf hardy perennial, of hybrid origin, obtained from a garden variety called *Dianthus Mauley*, crossed with *D. arboreus*; leaves narrow; flowers single, white, with a crimson blotch at the base of the petals, eight or ten of them collected into a close globular head. Raised at Cologne by *M. Herschbach.*
- EXOCHORDA GRANDIFLORA.** (*Gard. Chron.* 1858, 925). Rosaceæ. The corrected name of the handsome hardy ornamental Chinese shrub known as *Spiræa grandiflora*.
- FREMONTIA CALIFORNICA.** Sterculiaceæ. A very distinct and remarkably handsome, dwarf, bushy, deciduous shrub, reputed to be hardy; leaves lobed, resembling small fig leaves; flowers abundant, on short spurs, large, showy, their beauty residing in the golden-coloured calyx, which has a little

cinnamon-coloured down outside; there is no corolla. California. First raised by the Horticultural Society. *Messrs. E. G. Henderson & Son* and *Messrs. Veitch*.

GAZANIA SPLENDENS. (*Illust. Bouq.* 29, fig. 1). *Compositæ*. A distinct and showy bedding plant, useful on account of its rich orange-yellow flowers; leaves spathulate or slightly lobed, white beneath, as in *G. uniflora*, which the plant resembles in general character, only it is dwarfer and more compact; flowers large, rich orange yellow, with a dark ring around the disk. Possibly a mule between *G. rigens* and *G. uniflora*, though in its flowering more nearly resembling *G. pavonia*. *Messrs. E. G. Henderson*.

HOWARDIA CARACASENSIS. (*Bot. Mag.* 5110). *Cinchonaceæ*. A lovely stove shrub; leaves ovate, or obovate-elliptic; flowers cymosely paniced, tubular, pale rosy purple, tipped with deeper purple, an inch long, hairy. One of the calyx-lobes of the exterior flowers is enlarged into a broad, heart-shaped, stalked, rose-coloured leaf, a change of structure similar to that which occurs in the well-known stove genus *Mussaenda*. Venezuela. *Kew*.

IMANTOPHYLLUM CYRTANTHIFLORUM. *Amaralidaceæ*. A magnificent greenhouse perennial, obtained by crossing *I. miniatum* and *I. Aitoni*; leaves lorate; flowers in large heads, resembling a large-flowered *Cyrtanthus*, rich orange scarlet. Raised by *M. Van Houtte*.

LARIX GRIFFITHII. (*Flore des Serres*, 1267-8). *Coniferæ*. A graceful tree, inhabiting the mountains of Bhotan and Sikkim; head conical, the branches arcuately pendulous, with very long dependent branchlets. Some of the plants raised at Kew have stood our winters unharmed.

LYCHNIS HAAGENA. (*L'Illust. Hort.* 195). *Caryophyllaceæ*. A handsome hardy perennial, obtained by crossing *L. fulgens* with *L. Sieboldii*; flowers rich orange scarlet, two inches or more in diameter, the petals having a singular spur-like lateral lobe about halfway down on each side. Raised at Erfurt by *M. Benary*.

MEYENIA ERECTA v. ALBA. *Acanthaceæ*. A fine neat greenhouse shrub; leaves small, ovate, angular-lobed; flowers large, showy, broadly tubular, with an upward curve and spreading limb, white, stained in the throat with yellow. A variety of garden origin. *Messrs. Parker & Williams*.

MYOSOTIDIUM NOBILE. (*Bot. Mag.* 5137). *Boraginaceæ*. This plant is known as *Cynoglossum nobile* and *Myosotis nobilis*. A lovely, herbaceous, perennial, half-hardy Forget-me-not; leaves large, cordate, obtuse, smooth, plicately ribbed; flowers corymbose, deep blue, paler and almost white at the margin, nearly half an inch across. The fruits, which consist of broadly-winged nuts, or achenia, attached to a quadrangular receptacle, distinguish the plant from *Cynoglossum*. Chatham Islands. *Mr. Standish*.

OLEA ILICIFOLIA. *Oleaceæ*. An exceedingly ornamental hardy evergreen shrub; leaves flat, oval, Holly-like, serrated; flowers white, sweet-scented. Japan. *Messrs. Veitch & Son*.

POTHOS ARGYREA. *Orontiaceæ*. A beautiful, dwarf, trailing, variegated stove plant, remarkably neat in habit, and almost rivalling the *Anætochili* in beauty; leaves obliquely ovate, acute, green, marked with silvery blotches, the blotches on each side the central rib running together into a broad irregular band. The plant is adapted either for pot or basket culture. Borneo. *Messrs. Veitch*.

PRUNUS TRILOBA. (*Gard. Chron.* 1857, 216, 268). *Drupaceæ*. A beautiful, dwarf, hardy spring-flowering shrub; the long, slender, leafless branches are in spring loaded with compactly semi-double flowers of a delicate pale rose colour; leaves later than the flowers, cuneately three-lobed or oblong. China. *Mr. Glendinning*.

RHODODENDRON FORTUNI. (*Gard. Chron.* 1859, 868). *Ericaceæ*. A very remarkable and distinct species, as hardy as *R. ponticum*, and growing ten to twelve feet high; leaves exactly oblong, flat, six inches long, and nearly half as broad, heart-shaped at the base, and cuspidate at the apex, deep opaque green above, white beneath; the footstalks strong and purplish. It has something the aspect of *R. campanulatum*, but is wholly distinct. It has been introduced from China by Mr. Fortune, and has been raised by Mr. Glendinning, but has not yet flowered. Mr. Fortune, who found it on

the mountains in the province of Chekiang, 3000 feet above the sea, did not see it in bloom, but the ground beneath the plants was strewn with fallen blossoms in too decayed a condition for examination.

SALVIA DASYANTHA Labiatae. An ornamental stove or greenhouse sub-shrub; stem four-angled; leaves cordate, ovate-lanceolate, coarsely toothed; flowers in elongate racemes, showy rosy scarlet. New Granada. *M. Linden.*

SPRAGUEA UMBELLATA. (Bot. Mag. 5143). Portulacaceae. A curious and pretty dwarf herbaceous perennial, novel in character, free flowering, and very well suited for rockwork or the margins of flower-borders; at Exeter it has proved hardy. Leaves rosulate, spatulate, fleshy; flowering stems with a few smaller leaves, terminated by a compound umbel of many rays, the partial ones bearing three to four secund, crest-like, scorpioid spikes; flowers closely imbricated, two-ranked; the two large scarious sepals are whitish and persistent; the petals rosy lake, just protruding; the anthers purple, so that the flower-spikes appear to be white, dotted with purple. California. *Messrs. Veitch and others.*

STATICE BRASSICÆFOLIA. Plumbaginaceae. An elegant greenhouse herbaceous plant; stems winged; leaves lyrate pinnatifid below; flowers white, seated in a purple calyx. Canary Islands.

SYRINGA OBLETA. (Gard. Chron. 1859, 868). Oleaceae. A fine hardy deciduous shrub, about the size of the common Lilac, but more tree-like in habit; leaves large, fleshy, oblately cordate, as broad as long; flowers freely produced and very ornamental, about half as large as in the common sort, arranged in a thin loose panicle. There are purple-flowered and white-flowered varieties, both introduced by Mr. Fortune; the former now in the possession of Mr. Glendinning, the latter with Messrs. E. G. Henderson and Son.

TROPEOLUM MAJUS v. NANUM LUTEUM. Tropaeolaceae. The habit of this variety, known as the "Yellow Tom Thumb," is dwarf and compact; the flowers of a clear golden yellow. A useful flower-garden and bedding plant. *Messrs. Carter & Co.*

CALENDAR FOR THE MONTH.

Forcing-ground. Give air in fine weather to Asparagus and Rhubarb, and attend to the linings for these, as well as Seakale when forced in the open ground; a succession of Asparagus roots should be placed in the forcing pits, and covered to the depth of six inches with light sifted soil, and well watered when finished. Place some Ash-leaf Kidney Potatoes in a gentle heat to start for planting in pits, and some may be put into pots and placed on the Peach-house borders. Sow a succession of French Beans in pots, and maintain a good heat to those coming into bearing. Prepare a slight hotbed for sowing French Horn Carrot and Wood's Early Frame Radish; sow Royal Dwarf Peas in pits or in pots, and draw the lights off every fine day as soon as they are up. Bring into heat a few plants of Tarragon Mint and Chives, and sow Basil occasionally; also keep up a supply of small salad by sowing every few days. Cucumbers require great care at this season, and without a good command of heat it is useless to attempt their growth, as they require a night temperature of 70°, with increase of 10°, through the day, and every advantage taken of sun-heat by closing the house early. Use water sparingly, so that the plants do not get soddened. Use sulphur if any sign of mildew show itself on the leaves, and destroy green-fly

by fumigating. Sow again about the middle of the month; also some Scarlet Gem Melon for planting in pits and frames next month. Prepare dung and leaves by turning and mixing, to be in readiness for making new beds, filling pits, and renewing linings when required.

Pinery. The plants intended for early fruiting and those already should have the temperature increased. Water when the plants are started dry, but use it sparingly, and if much fire-heat is used maintain a moist atmosphere. The succession plants should be kept quiet during the dark days of winter; a little air may be given on fine sunny days, but avoid giving it in a manner to cause a draft in the pit; any sudden check is always injurious, and liable to start them into fruit. Maintain a steady temperature, ranging from 65° to 70° by attending to the linings, if the pits are not heated by any other means, and cover well at night in frosty weather. Collect plenty of leaves to be in readiness for renewing the beds by-and-bye, and where a sufficient quantity can be procured on no consideration should tan-beds be used, for no better material than a good bed of leaves can be desired for the cultivation of Pines; and those who use nothing else for bottom heat will avoid the injurious effect of a burning temperature in the beds, which is so ruinous to the healthy growth of the Pine, and which cannot always be avoided in tan beds.

Vinery. If the Vines are not in bloom in the early house maintain a moist atmosphere, and keep a steady night temperature of 60° till they are in flower, when syringing must be discontinued and the temperature raised 10° by night, and may rise to 80° through the day in clear weather, but on no account hurry them on dull or cloudy days. Stop the shoots one eye above the bunch, as before directed, and give air every fine day. Commence thinning at an early stage after the fruit is set, and see that a sufficient covering of stable dung or leaves be placed on the outside borders, to keep the frost from penetrating the soil. Vines in pots should have a liberal supply of manure water as soon as the fruit is set, and remove all natural shoots or any other useless growth. If the buds are swelling in the succession-house, maintain a moist atmosphere and increase the night temperature to 50° , and 60° in the day-time, and increase the temperature gradually in accordance with their stage of growth.

Peaches and Nectarines. Give plenty of air daily to the early house, and let the temperature range from 45° to 50° at night, with an increased temperature through the day. Maintain a moist atmosphere by syringing with tepid water till such time as the trees are in flower, when it must be discontinued till the fruit is set. Abundance of air is necessary when the blossoms expand; at this stage do not let the night temperature exceed 55° , or a lower temperature if the weather is cold and frosty, is preferable to using so much *fire-heat*. Disbud sparingly at first, and fumigate on the first appearance of green-fly. If the border is dry, give a good soaking of water after the fruit is set. Bring forward the succession house as before directed.

Strawberries. Place the early pots on shelves near the glass. Do not give much water till the fruit-spike is visible; after that stage weak manure water may be given, if the plants are not making too much.

foliage; in such cases it should be avoided till after the fruit is set. Give abundance of air when the plants are in flower, and when the fruit is properly set a warmer situation may be given them. Bring in more plants under glass at the end of the month, to follow in succession. Keep all the plants intended for later work sheltered from drenching rains by stacking the pots sideways in coal ashes, or placing them in a cold frame. Keens' Seedling, Prince of Wales, and Black Prince are among the best for early forcing.

Azaleas and Camellias. Such plants of the former as set their buds early in autumn, and have had a moderate rest, may, if wanted in bloom as soon as possible, be placed in a moist temperature of from 55° to 65° , taking care that they are properly supplied with water at the root, where, if they have been well ripened, &c., they will soon be finely in flower, and will last much longer in beauty than during bright weather in spring. The general stock should be kept in a cool dry house, giving air freely on every favourable opportunity, but do not allow the temperature to sink below 35° . See to the plants being tied as soon as possible; the latter will now be coming generally into bloom, particularly if they were assisted with heat, &c., to set their buds early in the season; and plants that have their buds in a forward state may be placed in a temperature of about 55° ; but subjecting these to a high temperature at this season generally results in comparatively small blooms, and, except where plants are much wanted, they should be kept in a temperature of from 40° to 50° . Attend carefully to the watering, as any excess either way is injurious.

Conservatory. Make every effort to maintain a good display of bloom here at present. Chrysanthemums will be all but over, and there should be a good stock of plants of such things as *Erica hiemalis*, *E. scabriuscula*, *E. gracilis*, &c.; *Epacris autumnalis*, &c.; *Daphne indica*, *Acacia oleifolia elegans*, *A. longiflora magnifica*, *A. linearis*, &c.; *Luculias* and *Camellias*, with which to supply their places. *Monochætum ensiferum* will be found to be one of the best plants of recent introduction for winter decoration where it can be afforded a temperature of 45° to 50° . Twiners on the roof, which admit of pruning at this season, if not already done, should be freely cut—the glass washed, &c., so as to admit all the light possible. Keep everything about the house perfectly clean, and use every care in arranging, so as to make the most of the plants in bloom. The temperature must be regulated according to the class of plants in the house; from 40° to 45° will be suitable for such things as I have mentioned, but *Begonias* and other stove plants will soon suffer if the temperature does not average towards 50° .

Stove. If not already done, get such plants as *Dipladenias*, *Allamandas*, *Echites*, &c., pruned, thoroughly cleared of scale and other insects, and repotted; and plants of either wanted to bloom early, placed in the warmest part of the house, giving water very sparingly at the roots until they start fairly into growth. *Ixoras* should also receive what pruning they may require, and be thoroughly cleared of scale and mealy bug, repotting such as require more pot room; and any plants of these expected to bloom in May or early in June should

be placed in the warmest end of the house. Pot a batch of Achimenes, Gloxinias, Clerodendrons, &c., for early blooming, and place them in the cool end of the house; also repot any plants which may require this attention. See to the propagation of things wanted for autumn decoration, as Begonias, &c. Temperature from 60° to 70° , with a rise of 10° to 15° , with sunshine, giving air only when necessary, to prevent the sun raising the temperature too high.

Greenhouse. Hard-wooded plants, as Ericas, &c., should have a rather dry atmosphere, giving air freely on fine days, but cold frosty winds should not be allowed to pass over the plants, as is often done by giving back and front air on the forenoons of bright cold days, when only the top sashes should be opened. Attend very carefully to the watering, keeping the plants rather on the side of dryness; but when a plant must be watered, giving enough to moisten the ball throughout. Be as sparing as possible of fire heat, not raising the temperature by this means above 40° . Calceolarias and other soft-wooded plants do better in pits than in an ordinary greenhouse amongst hard-wooded plants, but where these must be grown here, they should be placed by themselves as much as possible, giving air very sparingly against them, for they require a moister atmosphere, and a rather higher temperature than is advisable for hard-wooded plants at this season. See that these are kept perfectly clear of aphis, and also that they do not suffer for want of pot room before they are shifted into their blooming pots.

Cold Frames. The stock here must be guarded from frost by sufficient covering whenever this may be wanted. Give air liberally on mild days, and a little whenever it can be safely done. Keep the plants rather dry at the root, and when watering is necessary let this be done early on a bright day. See that Verbenas and other things liable to suffer from aphis and mildew have the proper remedies applied immediately they may be wanted. Remove all decaying leaves as they make their appearance. Anything of which a large increase is required by planting out time should be placed in a warm moist atmosphere, repotting such as may require it, and using every care to obtain a sufficient stock of strong cuttings early. This advice will be especially necessary in cases where the stock of Golden Chain and other variegated-leaved Geraniums were unfortunately exposed to the early autumn frost, for unless cuttings of these can be obtained early in spring the plants will not produce much effect in the beds the first season.

Flower Garden. Any alterations which may yet be in hand or projected here should be pushed forward with the greatest possible dispatch. Prune the summer flowering and Hybrid Perpetual Roses, and either give a liberal dressing of thoroughly decayed manure or well soak the ground about their roots with strong liquid manure. Those kinds liable to be injured by severe frost had better not be pruned at present. Prepare ground intended for fresh plantations of Roses, trenching deep and manuring liberally, and plant hardy kinds as soon as convenient; also get any spring flowering bulbs planted which may have been neglected until now. Push forward any routine work requiring attention.

Fruit (hardy). Continue to prune and nail Plums, Pears, Cherries, and Apricots, taking advantage of every favourable opportunity to

forward this operation. All standard fruit-trees may also be pruned, and if Moss infests the trees, the main branches should be scraped and dressed with a mixture of soot, urine, and lime water. Prune Currants and Raspberries, and manure and fork the soil between the rows. It is best to defer the pruning of Gooseberries till a later period, on account of the injury often done to the buds by birds during the winter months. Root prune dwarf standard Pear and Apple trees, if over-luxuriant or unfruitful. Plant all kinds of fruit-trees when the weather permits, if not already done, and mulch them after planting with rotten dung or leaf mould, to prevent the frost penetrating the soil, which will materially assist the trees in taking root. Examine the labels of fruit-trees, and prepare new ones in bad weather; also cut shreds, and clean old wall nails by heating them in an iron vessel and stirring in a little coal tar while they are hot. Look over Pears and Apples in the fruit room, and remove all decayed or specked fruit. Maintain an equal temperature, and do not admit much air or light.

Kitchen Garden. It is not improbable that the severe frost of last month may have done much injury to the green crops in this department, especially to the Lettuce and Cauliflowers; therefore it will now be necessary to examine the winter plants, both under glass and in the open ground, and if much damaged, sow some seed of early Cauliflower, and White Paris and Brown Cos Lettuce, under glass, towards the end of the month, to be in readiness for spring planting. Take every opportunity during severe frost to wheel manure on vacant ground, and dig or trench every spare foot in open weather, so that the soil may get well pulverised by frost, to be in readiness at seed time. Sow, about the middle of the month, Daniel O'Rourke and Sangster's No. 1 Peas on a warm border; also some Mazagan or other early Beans in a similar situation, and strew some seed of the Long-pod in a warm corner, and cover with leaf-mould, to spear for planting in the open quarter next month. Radishes of sorts may now be sown in a warm border and covered with litter. Give air every opportunity to Cauliflower and Lettuce plants under glass.

FLORISTS' FLOWERS.

Auriculas. Attention must be given to keeping them clean and free from frost (frigi domo is about the best covering), as any plants that are truss bare now, would be seriously affected in the bloom if caught, and we are now (Dec. 15) in the midst of severe frost and snow; do not brush the latter off the frames—it makes a warm covering.—*Carnations and Picotees.* Give air in fine weather, cover in frost, and keep the covering on during day, as the sunlight is injurious if they have caught the frost at all.—*Dahlias.* Keep dry, and look over occasionally. If any mildew appear or moistness at the crown it should be removed.—*Pansies.* Keep free from damp, and give plenty of air in fine weather, and get compost ready for potting towards the end of the month.—*Pelargoniums.* These should be making good progress if intended for showing, those for the late shows to be shifted, those for the early ones to have an increase of temperature, say 50° at night, and about 10° more in the day. Avoid overcrowding, and constantly turn and move the plants. Give air when you can, but avoid draughts. Water as the plants grow, sparingly at first, but more liberally afterwards.



Dianthus chinensis Hedderwigi.

Drawn by Miss Andrews.

Plate 160.

Jas Andrews.



1. *Nigella Hispanica* Alba.
2. *Clarkia pulchella* integripetala.
3. *Ipomoea limbata* elegantissima.

Plate 161.

ANNUALS.

(PLATES 160 AND 161.)

WE are pleased to find that the better class of Annuals is on the eve of a much wider application to ornamental gardening than has been allotted to them of late. This advance in public favour is doubtless owing to two causes; the principal one points to the extreme want of variety, which for years past has been a noticeable defect, even in very first-class gardens. The passion for strong masses of colour has led to the too frequent use of Geraniums, Calceolarias, and Verbenas, varied occasionally by Salvias or Petunias. This arrangement no doubt produced masses of brilliant and effective colours, so far as they went, but failed to impart to flower gardens the still greater charm of variety and gracefulness, without which the mere repetition of groups, confined to three or four variations of colour, produced an unsatisfactory effect to the eye of taste, and failed even to please minds less tutored to comprehend how necessary different shades and gradations of colour are to complete the *ensemble* of the parterre or flower garden, and to sober down the glare produced by the repetition of the blue, red, and yellow colours of which we complain.

We have always been of opinion that the fashion in this respect would undergo a change, and that ere long plants would be selected for massing and mixing, less showy perhaps than those named above, but equally interesting to the lover of flowers, and adding the great desideratum of variety, both in form and colour, to our gardens. Of this class, Annuals undoubtedly form the largest proportion.

A second reason why Annuals are becoming more generally grown, is the ease with which they are raised and the very small amount of trouble their cultivation entails, compared with the other section. The yearly propagation required with Geraniums, Verbenas, &c.; the potting and planting, the relifting and wintering, involve expense, care, and appliances not within every one's means. It will therefore create no surprise, now that the love for flowers is become universal, to find that those who have not the means to grow plants requiring a winter's care and glass erections, fall back on Annuals to make their gardens attractive and gay through the summer, which they can do with little trouble and small cost. An ordinary garden soil, well dug and loosened, and a few shillings' worth of seeds, are a trifling matter, compared to the cultiva-

tion of ordinary bedding plants. Nor should we omit to notice another reason bearing on our subject, which carries with it a strong motive for the increasing interest now felt for this class. Annuals, like other popular flowers, have been greatly improved by careful cultivation and judicious hybridising. The horticulturist soon perceives when a class of plants is susceptible of improvement through this agency, and advantage is quickly taken of the fact; to this result the many splendid varieties of Annuals which year by year are brought into notice are owing. Both in this country and on the Continent great attention has of late years been paid to the object of obtaining improved varieties from seed, as may be seen by comparing the advance in Asters, Phloxes, Zinnias, Stocks, Tropæolums, Lobelias, and many other genera of Annuals; and looking at the magnificent *Dianthus* now figured, having been obtained by the efforts of Japanese gardeners, from the well-known Chinese Pink, we may refer our readers to both the plates of Annuals given in our present number, as conclusive evidence of the improvement which has taken place in the families they represent.

But to grow annuals as they should be grown, and to develop their habit and beauty, the ground for them should be both deep and rich (as is necessary for all rapid growing plants), and the plants should be treated as individuals requiring generous treatment. We remember the time when a ring formed with the finger round a 32-sized flower pot in the loose soil of the border, was the common way of committing the seed of Annuals to the ground. Here they remained to grow, and after an ineffectual struggle for more room, spindled upwards into bloom, when the first fortnight's dry weather closed their career. What figure, let us ask, would Mons. Truffaut's grand Asters cut with such treatment as this? Or what the splendid Zinnias, Tropæolums, and Larkspurs which form such striking objects when grown singly in good soil, if they had been left to starve, at the rate of fifty plants per square foot of ground? No; Annuals, to do justice to them, must be treated individually as we treat a specimen plant, and then you get a freedom of growth combined with a profusion of bloom; and what is more, the deeper and richer the soil, the longer they will continue in perfection.

For the introduction of the superb varieties of *Dianthus* which form our 160th plate, English nurseries are indebted to M. Heddewig, of St. Petersburg, who obtained them from Japan direct, and subsequently sent seeds to a few of the principal seedsmen in London, where

the plants bloomed for the first time in 1859. We owe our representation to the kindness of the Messrs. Carter, seedsmen, Holborn, who received a portion of M. Heddewig's first supply of seeds, the plants from which produced the blooms which furnished Mr. Andrews with materials for his figure, which we need not say is executed with his usual ability.

Our readers will readily discover the close resemblance *Dianthus Heddewigii* bears to the old Chinese Pink, a native of Japan, to which, however, the blooms are very superior, both in point of size and richness of colouring; the latter embracing every conceivable hue of crimson, maroon, violet, rose, and white. The markings of the individual flowers are strikingly beautiful; some have a centre of rich velvety crimson, shading off towards the edge of the petals with lighter crimson and rose; others, with a maroon centre, have the rest of the petals curiously marbled and blotched; while others are striped with various shades of rose lake, pink, and white. This diversity of colour, where several plants are grown together, forms a mass quite indescribable, and as such will constitute it a charming addition to our gardens; and as it is of easy culture, we hope we shall soon have the pleasure of seeing it in every garden.

Dianthus C. Heddewigii forms a dwarf branching plant scarcely 12 inches, covered with flowers, which are crimson, violet, and rose, or marbled striped and parti-coloured, on different plants. The individual blooms, which are fringed at their margins, are 3 inches across, and abundantly produced; so much so, that at a distance the plant has the appearance of one mass of colour, of the richest description. *D. C. Heddewigii* and its ally, *D. C. laciniatus*, will form admirable plants for beds for the flower-garden, or for single clumps in mixed borders, as well as for greenhouse culture. Where the object is to furnish blooms from July to November in the open air, the seeds should be sown in February in a warm frame, and nursed on by pricking out and potting in 60's, so that by the middle of May they will be nice stocky plants, fit for turning into the open ground. When they are required as pot plants for the show house or conservatory, in April and May, then the seed must be sown in August, or September at the latest, and the young plants kept in a dry airy place, with a moderate temperature, through the winter; but a good supply of light and air will be requisite to keep the plants in health, and they will require shifting into their blooming pots in February. For out-door culture any rich light garden soil will grow them; but for pots, good turfy loam, sand, and well decayed dung must be used. Although, like many other species of *Dianthus*, these may be considered, strictly speaking, of biennial habit, they may easily be made to bloom the same year by sowing early and pushing the plants on in a little heat, and as they form plenty of young shoots through the season, very choice varieties may easily be propagated by cuttings.

Clarkia pulchella integripetala.—Here we have another marked improvement on an old favourite, the *Clarkia pulchella*. The flowers are nearly double the size of the original species, more brilliant in colour, and entire, instead of being divided into three segments, as is the case with *C. pulchella*. It will add a very pleasing colour to the

flower-garden and parterre, and as it is of the easiest culture, growing well in any moderately rich garden soil, will soon become a popular plant, destined to throw its progenitor out of notice. This variety has been raised by the Messrs. Carter, of Holborn, and is the result of a very careful selection of the best varieties only for seed from year to year, added to a high state of cultivation.

Nigella hispanica alba.—This is a new variety of *Nigella*, of free growth, compact habit, with flowers of a pure white; it will be found extremely useful for many purposes in the flower garden. This variety was recommended by the Horticultural Society,

Ipomœa limbata elegantissima.—The *Ipomœa* is well known as furnishing the most graceful and charming of climbing plants. The exotic species, as *Learii*, *Horsfallii*, and *rubro-cœrulea*, are known as conservatory climbers of great beauty; several others of this family are hardy enough for out-door decoration during summer, and trained to a south wall few plants are so beautiful. The blooms, though of short duration, are produced in great profusion, and during the mornings display a rich mass of colour, comprising every shade of violet, blue and white, while their graceful habit adds not a little to the admiration in which they are held. Our present subject is a new variety, raised from *I. limbata*, from which it differs in having a star-shaped spot of intense blue, surrounded with pure white, making a beautiful contrast. Although the roof of a greenhouse would certainly be most suitable for this elegant plant, yet we mean ourselves, and advise all who have the room, to try it against a south wall. For this purpose the seeds should be sown early, and potted off and grown in a frame until one foot or more high, when they will require being gradually hardened off by placing them in a greenhouse temperature. Towards the middle of May they should be carefully transferred from the pots to a well-prepared compost and planted against a south wall, sheltering them for a time by placing a spare light or two before them until they fairly begin to move; after which they will require constant watching to direct the shoots regularly over the trellis, which should be provided for them, in preference to nailing them against the wall; round the wires of a trellis they will naturally twine themselves, and unfold their blooms more gracefully than when nailed. This fine variety has also been obtained by the Messrs. Carter, through their agent on the Continent, and has resulted from a careful hybridising of *I. limbata*. We hope soon to see our garden walls and trellises covered with these charming exotic-looking plants, for which they are particularly adapted; and as the hybrids now produced are much hardier than the older species, we see no reason why they should not become as common as the *Convolvulus major*. We beg to tender our best thanks to the Messrs. Carter, for allowing us the opportunity of figuring our present subjects.

APHIS IS NOT APIS.

EVERY writer should define his subject. I will therefore endeavour to define mine—first, negatively; and secondly, affirmatively.

First, negatively. Aphis is not Apis; for, though the name sounds so like, it differs from the latter in several material points. Aphis does as much injury to man as apis does good. Aphis sucks up the saccharine, and injures or destroys what it touches. Apis destroys nothing, but reproduces the saccharine in honey and wax. Aphis destroys and builds not; but apis is the most wonderful builder in the world. Aphis destroys our enjoyments, but apis promotes them. Apis is the only insect, that I know of, that administers food to man, while it teaches him, at the same time, architecture, industry, and foresight. Other insects administer to the service of man, though not to his feeding propensities, viz., the silkworm affords clothing, and cantharides a blister for his body; and if, brother Rosarians, you are short of this latter commodity, aphides will effect this purpose, unless your epidermis is thicker than mine. How multitudinously have they swarmed this summer, upon Rose trees and Sycamores, which latter trees they are fond of. Mr. Atkinson, solicitor, of Blandford, told me that his Sycamores had been covered with them, “infinite multiplied by infinite.” Aphis, then, is not apis. It is a “blister,” and aphides are an infinite number of “blisters.” But true philosophy

“discerns

A ray of heavenly light, gilding all forms
Terrestrial, in the vast and the minute;
The unambiguous footsteps of the God
Who gave its lustre to an insect's wing,
And wheels his throne upon the rolling worlds!”

Secondly, affirmatively. Aphis may be associated with locusts, crickets, and grasshoppers, the first and last of which are enemies to vegetation. Indeed, the green aphis, though round in body, has wings, and legs, crooked like a grasshopper; the difference being this; that the grasshopper proceeds by short flights and the aphis by extensive ones. There are at least two kinds of aphis, the black and the green. The black aphides are destructive, in some places, of Bean crops, and sometimes settle so thickly upon the tops as to blacken them. In such cases it is best to cut off the tops, which also helps to increase the crop. The green aphis is not at all times green, but brown or blackish, most probably when about to change its skin, which it does several times in the summer, as Bounet proved by confining a very young one in a glass case.

There are numerous species of this insect, called plant louse, Vine-fretter, or puceron, according to the plant which it attacks. The males are winged, and the females are wingless. They are both viviparous and oviparous. The first aphis is produced in summer, from an egg, and then ten viviparous generations succeed, and the tenth lays an egg again, and the same process goes on as before. If you add the oviparous generations, of course the sum becomes still more incalculable. The viviparous generations are produced in spring, and the oviparous at

the fall ; and it is by this arrangement that these wonderful plagues are preserved, as doubtless the viviparous broods die in winter, to be replaced by the spring hatched eggs. If this be so, it shows us how necessary it is to cleanse the Rose trees at the fall, as well as destroy the viviparous broods during summer. I always observe, and have especially this summer observed, that after heavy and continued rains, particularly thunderstorms, they greatly and almost totally disappear, till later in the fall. And this does seem to suggest that the best way to preserve the Rose is, to syringe it constantly and copiously with cold water. Hand squeezing and syringing are the best remedies that I have yet tried. The mischief of most remedies is this : they are all of a drying nature. Tobacco, soft soap (containing arsenic), decoction of aloes, are all drying materials. Now the aphis does its worst in long-continued easterly winds, when the Rose tree grows slowly. It sucks the saccharine juices till the bud is a neutral tint or a dirty brown. It is at this time that we philosophers add to the dryness of the bud, by putting on stiptics and caustics. Is this wise ? I confess that I have used sulphurs, black and yellow, and also another receipt, viz., a decoction of aloes ; and I admit that they all greatly baffle the aphis ; but if the trees and buds could speak, probably they would say, " Save us from our friends." I have, this summer, had grubs hand-picked daily ; and three times a week, at least, I have had the trees looked over, and aphides killed by hand ; and then the trees were counter-syringed by two men at the same time. After the syringing the ground was raked over (a suggestion of Mr. Ingram's), to bury the fallen ones. Indeed, as far as eggs or larvæ are concerned, shaking the tree with a vibrating motion may be found to be a good way of lessening the evil. If they fall off, they are too young to fly, and are starved, and if you rake the eggs and larvæ in, they are safe. Had I not hand-picked and washed my trees, I doubt the aloes and sulphurs being sufficient to stay such a plague as aphides have been this summer.

Mr. Milne has told you how clean and healthy the foliage has been here (mildew, however, set in here after he left more than I have ever known it to do), and how clean the buds were, as compared with other Rose-gardens. Certainly, I must say that I have seen no Rose trees so clean elsewhere, this year. I have said that three times a week in the early part of the summer, my Rose trees were hand-picked or gently squeezed twice a day ; I believe, however, it would be nearer the truth to say that they were washed, picked, or looked over most days. To do this effectually, as some of the old cunning hands drop or fly away, it is always well to go over the same trees again in the evening of the same day. It is, of course, most troublesome work, but is not the result gratifying ? Is he worthy of being called an amateur, who leaves his trees to the Fates ? On the 19th of September, after abundant summer blooming, the trees here were in beautiful bloom ; and on the 6th September I had the honour to carry off all the Rose prizes at Blandford. Is it not, then, worth while to take pains with a flower, which will do nothing for you, if you will do nothing for it ? and which will afford, when attended to, so much personal and relative gratification. I have no other flowers here, except

"Cauliflowers," and a few Hollyhocks, and Dahlias, to back up a summer Rose bank. A Rose! there is nothing like a Rose, and among Roses there is nothing so perfect and beautiful as Vidot.

"Yes, lovely Rose, I find in thee
That sweetness which no words express;
And charms in thy simplicity
That dwell not in the pride of dress."

Longhorne.

You may well address her

"Queen of Beauty, lovely Rose,
Thy soft and silken leaves disclose;
The storm is past, the tempests fly,
Soft gales break gently through the sky;
The silver dew and gentle showers
Call forth a blooming show of flowers;
And now thy beauties all unclothe,
Queen of fragrance, lovely Rose."

Smith.

Garrick has crowned the Rose as the Queen of Flowers, in eulogy, which every amateur and non-amateur will not only assent to, but repeat with feeling sensibility.

"No flower that blows
Is like the Rose,
Or scatters such perfume.
Upon my breast,
Ah! gently rest,
And ever, ever bloom!"

But, remember, this is poetry. Before you can expect to realise the words "ever, ever bloom," you must work. "Labor omnia vincit." Think of the late lamented Sir Robert Peel's motto, "Industria;" think also of the "apes" on his venerated escutcheon, denoting, that taught by the industry of bees, he was determined to succeed, and signally to succeed, in life? What, moreover, was one of the bases of the Duke of Wellington's success in life? It was attention to business. Remember, amateurs, what the shopkeeper said, when asked how it was that he had succeeded so well. He said that every morning, after prayers for God's blessing, he went into his shop, pulled off his hat, made a bow to the counter, and uttered these words, "Mr. Shop, I will keep you if you will keep me."

In conclusion, then, do not mistake aphids for apis. There is an aspirate in the former, and also "Industria." By the help of a magnifying glass you will perceive that it ceases not to peck like a hen, or woodpecker, or "navvy," with his unwearied pickaxe. Every peck from his mandible sucks out the life of your bud. Be you also "Industrious," and let him taste the aspirate of your finger and thumb, and then wash away his foul offence. Or in vain will it be for you to exercise the inert sentimentality of poetry, in anticipation of some future Vidot, in such words as these:—

"Mild be the sun on the sweet blushing flower,
In the gay rosy morn, as it bathes in the dew,
And gentle the fall of the soft vernal shower
That steals in the evening each leaf to renew."

O spare the dear blossoms, ye Orient breezes
 With chill hoary wing as ye usher the dawn!
 And far be it distant, the insect that seizes
 The beauty and pride of the garden and lawn."

Does not this "seizure," amateurs, stir up your animosity to the aphid, and arouse you to industry? Well: it has other enemies than human, according to Reaumur, and this is his account of them: "The Rose tree is, after a mild spring, greatly injured by a species of aphid (*A. Rosæ*). If it were not for the numerous enemies to which it is exposed, their fecundity is such that the leaves, branches, and stems of every plant would be totally covered with them. Myriads of insects of different classes and of different genera seem to be produced for no other purpose than to destroy the aphid. On every leaf infested by them we find caterpillars of different kinds. These feed not upon the leaves but upon the pucerons, whom they devour with an almost incredible rapacity. Some of these larvæ are transformed into insects with two wings, others into flies with four wings, and others into beetles. While in the larva state, one of these glutinous insects will suck out the vitals of twenty pucerons in a quarter of an hour. I supplied a single caterpillar with more than 100 pucerons, every one of which he devoured in less than three hours!"

With my magnifying glass—a most useful instrument to inspect budding operations, and also the velvety beauty of such Roses as Willermoz, Napoleon, and Ravel—I have observed that there is always a thin black fly which accompanies the aphid. I have hitherto killed it; but in future, till I am better instructed, I shall let it live, in the cherished hope that it may be an enemy to the aphid, which I still assert is not apid.

W. F. RADCLYFFE.

Rushton, Nov. 22.

POLMAISE AGAIN.

MOST people have characterised this mode of heating as a great mistake. We begin to differ from them, and consider the mistake is in the application. A few days ago we called at Dropmore, and found it had been there for several years in successful operation; so much so, that Mr. Frost is carrying the same system out in some new houses at present erecting. It is decidedly economical in fuel, simple in principle, and cheap in putting up. In places where it can be adopted, we have no hesitation in recommending it; or where parties wanted to give a little forcing to orchard-houses, large late vineries, or large houses of any description, it most particularly recommends itself, as by keeping the air in complete motion a greater amount of heated circulation is obtained from the same fuel than from a common flue or hot-water pipe.

We will endeavour to describe a small square-roofed plant stove that we saw at work, the large vineries on the same principle not being slated, and if our memory fail in anything, we have no doubt Mr. Frost

will readily correct us for the good of the public. There is a wall all round the stove with a pit in the centre ; all round the outside of this pit is a neat common flue, the pit being four or five bricks higher than the flue. On a level with these bricks, inside the pit all round, about three feet apart, are two inch tubes fixed into an air drain inside the pit ; the fire is at the back of the stove, in the centre, passing under the path. On each side, and over the top of the fire, are places similar to soot doors, but open ; through these the air passes along and over the hot bricks forming the furnace, passing into the air drawn in the pit, feeds the zinc tubes, where it comes in quite a current. If moisture is wanted, water is poured down the tubes ; if less heat, a piece of slate is put on the tops, or a little hay is stuffed in. If the house requires smoking, a pot and some material is put in each hole by the furnace door and the house is full in a few minutes ; only stop the holes when the house is full, as the smoke is soon driven out. The pit is filled with leaves, or other plunging material, for any purpose it may be required.

We will finish by calling the attention of every person who has a fire to keep up, to a furnace door, becoming general in this part, both for engines and houses ; it is a complete smoke consumer, and can be put in any door. It consists of, first, an open grating in the centre of the door, similar to the grating in a walk drain, about one-fourth of an inch between each bar ; inside of this a treble wire net of copper and iron is fixed. Some will say the wire will not last long—it will soon get burned. Not a bit of it ; the air filters through the wire and sends the heat to where it is wanted ; and so cool, that when the furnace is red a lady may hold her hand against the door, and what is better, it makes the fire the smoke consumer to perfection. It will be evident to any person at all conversant with this, that the present method of two doors—the lower to supply air—sends soot and smoke all up the chimney. Not so, this ; it makes both serviceable for heating.

F.

AURICULAS—SPRING MANAGEMENT, &c.

HAVING received several private communications on the subject of this flower, I have thought that perhaps my answers thereto, thrown into a short paper, might be of service to others as well as to those who have asked me. With regard to the proposed show, the prospects are, I am sorry to say, of a very “ sketchy ” character : from several friends the answer has come—“ We shall be very happy to subscribe ; ” but alas ! coupled with the regret that they cannot exhibit. Now an Auricula show without Auriculas would be worse than *Hamlet* with the part of “ Hamlet ” left out ; and even should it take place at the Botanic, or any other show, all interest in it would be at an end, if only one or two persons exhibited, and therefore I very much fear it will fall to the ground. This, I think, is to be attributed not to any want of real interest in the flower, but that the growers in the southern counties are few and far between, and that around the metropolis they are equally

scarce. I do not, for instance, know another grower in this county ; and I am so small a one as not to be worthy of being counted as such. With other flowers the case is different ; and until the taste for them is revived in and around London, I fear the plan must be in abeyance.

“ I am much troubled with a black spot on my leaves ; can you tell me what it is ? ” Thus writes one correspondent, evidently nervous about the black rot, for he adds, he has lost several of those he got in last year from —, with some disease at the root, which, he adds, has no bad smell, and which he attributes—justly, I believe—to overstimulating growth, previously. The black spot is a species of mildew : a piece of it under a quarter-inch object glass shows a number of filaments and spores, with the exuviae of green-fly ; and I am inclined to think that these latter gentlemen are the cause of it. My friend adds, these gentlemen have been a great trouble to him, and I think he will find that where the one exists the other follows. The remedy is, carefully brushing off the “ varmint ” with a good-sized camel’s-hair brush. The spot itself will often give way to the same treatment ; but if not, the handle of the brush, or a touch with the nail, will remove it.

With regard to the showing of Auriculas, of which, both publicly and privately, I have been asked about, my own idea is, that there are few if any flowers where the treatment for one’s own growth and for exhibition vary so little. I should now, in either case, *e. g.*, prepare for top-dressing by removing with a blunt piece of wood all the soil as far as I could without disturbing the roots, and then fill in with a rich compost composed of well-rotted cow-dung and silver sand, and having given the plants a gentle watering, should leave them to grow away. They will require abundance of air and light, and the frames should, except in cold biting winds, be kept open. When the vile north-eastern is “ a-blowing,” either admit the air from underneath, or else have a calico screen to break it off ; as the temperature increases and the plants grow, more water will be needed ; there is no staking and tying-out, no carding and binding, no cutting-out and potting, as in Geraniums, Picotees, or Dahlias, the most necessary duty to be done being reducing the number of pips in the truss, and as these increase in size, keeping them apart by a small piece of cotton wool. With regard to their appearance on the exhibition tables, no plant ought to be allowed a prize with fewer pips than *seven* ; and it should be specially borne in mind that the pair (as they are generally shown so), should be well matched as to height, and *contrasted*, if possible, as to colour. It would be as *outré* to place together two plants, one with a flower-stem six inches and another four, as to drive a horse of sixteen hands and a cob of thirteen in the same carriage ; and if in colour you can get one, say, with a dark black ground, as *Ne Plus Ultra*, and another bright and clear, as *Maria*, or in self *Blackbird*, *Hannibal*, and *Metropolitan*, it is surely prettier than two nearly similar. One great art in showing is the advancing or retarding the blooms, as the case may be. The former is most difficult, but it may be effected by placing under a handglass in the sun, shading slightly and well watering all around ; the latter, by removing to a shady place, and pursuing just the opposite treatment.

I quite agree with a friend, that we are likely to have an early bloom, though I rather fancy he is earlier than I am, for he says—"All my collection is on the move;" while, except Ashton's Prince of Wales, which is proverbially early, I have none truss-bare as yet. I rather hope it may be, for I expect to have to leave mine early in April for a little; and though I shall probably miss much enjoyment in them, I hope to have an opportunity of seeing Dr. Plant's collection, and shall not fail to let my fellow-growers have a full, true, and particular account thereof. I am sure he will gladly give me the means of so doing, as it will be true of me—not in any invidious sense—

"A chiel's amang ye takin' notes,
An' faith—he'll prent 'em."

D.

Deal, Jan. 21.

THE SIX OF SPADES.

CHAP. II.

WHEN young Mr. Chiswick, the gardener at the Hall, made his first appearance in our village, he was generally supposed to be an officer of cavalry on leave, or a foreigner of distinction on his travels. Great was the surprise accordingly, when, coming to church the Sunday after his arrival, he took his place with the domestics, and not with the Squire. Nevertheless, and though he fell in the social scale, he rose in the estimation of our villagers. Here was a handsome young fellow, with the neatest of moustaches and the trimmest of beards, *not* come to marry Squire Granville's daughter, and therefore no longer a fascinating impossibility to the more humble maidens around. Mademoiselle, Lady Constance's maid, at the Castle, immediately traced in Mr. Chiswick's lineaments a striking resemblance to the old French *noblesse*; the damsel who assisted at Lady Isabel's toilette, was sure that he had been accustomed to the best society; Miss Granville's attendant was forcibly reminded of Lord Byron's "*delightful Corsair*;" and all our unmarried beauties expressed their true commiseration, "that such a pleasant young man should be buried alive in that lonely cottage, belonging to the gardens at the Hall."

There were dissentient voices, of course. Our young men spoke slightly of "Jews" and "barbers' blocks." Mrs. Verjuice, the housekeeper at the Grange, declared his "manners was 'igh, and his appearance' airy." And even the mild, kind-hearted Mr. Oldacres was reported to have murmured something about "a Pomological Puppy," to have spoken disparagingly of Mr. Chiswick's "foliage," to wit, his moustaches and beard, and to have told the Duke's huntsman, that "he would find some excellent covert at the Hall, when he wanted a fox, next season." I think that a little breeze of apprehensive jealousy stirred the tranquil waters of that grand old heart. Mr. Chiswick had won medals at the London Shows; there was to be a

new orchard house at the Hall (poor Mr. Oldacres had only *four*, well stocked with fruit-bearing trees); and our King of Spades looked sternly (it was but for a moment) from his palace upon the modest vinery of Naboth.

Now what do you think that the King's daughter, at this crisis of our history, the Princess Mary of Oldacres, went and did? Exactly so; for I know that you have guessed it; she did, indeed. As you, my subtle reader, have well inferred, she did *not* wear her second best bonnet, much less did she distort her very lovely face with unnecessary sniffs and sneers when she met the bearded knight, whom the king her father was disinclined to honour. The knight fell head over beard (his ears were planted out by extensive shrubberies, and so I vary the old expression that they may preserve their position of retirement) head over beard in love with the Princess, and "Jill" (if I may apply such a term to royalty) "Jill came tumbling after." When Mr. Chiswick got sixty-eight runs from his own bat in our annual match with the Slawmey Slashers (it is only fair towards our neighbours at Slawmey to remark that their best bowler was unable to attend, in consequence of a very pressing engagement at the treadmill of our county jail), and was carried from the wickets upon the shoulders of his rejoicing and victorious friends, I saw the bright colour rise on Mary's cheek as vivid as the Poinsettia; and again, when in our contest with the picked eleven from Moughboro' some clumsy ruffian, shying in widely, hit our pet batsman on the head, and

"round he spun, and down he fell,"

I saw poor Mary—indeed I went to tell her that there was no serious hurt, having an earnest sympathy with lovers—vainly endeavouring to conceal her sore distress, and as white as *Azalea candidissima*!—And so it came to pass, on a moonlit January night, when, in spite of the Under-whip's protestations, that "he never could see the use of *them frosses*," the Castle Lake had been covered with skaters and spectators; it came to pass that Mr. Chiswick, after astonishing every one with his "eagles," and figures, and "outside edge," and turning about and wheeling about upon his skates, as comfortably as the celebrated Mr. Crow without them, walked home with Mary Oldacres. And he told her, as they walked, his Winter's Tale. He spoke of his loneliness in his cottage-home with so much bitter plaint, that you would imagine the Moated Grange of Mariana, or the Haunted House, so wondrously described by Hood, to have been quite festive residences, halls of dazzling light, and abodes of the fairies, when compared with his Den of Despair. He described in harrowing terms "the fearful sense of desolation which oppressed him, and would, he knew, oppress him that very evening, when, alone and dolorous in his dreary cave,"—(Oh fie, Mr. Chiswick, Mr. Chiswick! how can you thus defame your cozy parlour, with its cheerful fire and singing kettle? how can you thus ignore your horticultural books, your cornet-a-piston, upon which I heard you playing but two nights ago, in your divine despair, the melancholy air of Hoop-de-dooden?) "where no sound was to be heard save the sorrowful sighing of the wind," (he said nothing about

the snoring of his small servant asleep in the contiguous kitchen) "and the dismal drip of the rain" (here Miss Oldacres looked up into the cloudless shining heavens, as if wondering wherever the rain was to come from) "he should sit, like patience on a monument, smiling at grief,"—the monument consisting of a very easy chair, and grief being represented by a plump little pipe of Bristol bird's-eye, and a glass of gin and water, "hot with." Finally, this unhappy plaintiff, whom you could not have identified with the smiling skater, shooting over the lake only half an hour ago, as though he had backed himself to catch an express train, after glancing briefly at the delightful privileges of self-destruction, the repose to be found in Yellow Fever, and the unspeakable consolation of being killed in battle, in cases of severe disappointment, asked Mary Oldacres to be his wife; and I am quite sure that the bright moon, in all her great experience, never looked upon a happier couple as they came home, hand in hand, and heart in heart, that night, through the silvered grass. Mr. Chiswick returned to his "dreary cave," and evoked unjust suspicions of his sobriety in the small servant, by informing her that "life was ecstasy, and he should raise her wages;" and subsequently proceeded to evoke the sparrows resident in the creeping Roses outside, with "Love's Young Dream" from the cornet.

You ask, perhaps, at this crisis, with the fast Oxonian in the song, "but what will the Old Governor say?" and I must tell you, in answer, that the primary chilliness to which I alluded, soon thawed in the warm bosom of Mr. Oldacres, that he made an acquaintance, and then a friendship with Mr. Chiswick, and that Romeo knew, when he astonished the sparrows, that he had little to fear from Capulet. And this was so, because the younger man ever tendered to his senior that due respect and deference which is not quite so common in these days as it certainly is just and seemly. Mr. Oldacres had expected to meet a supercilious dandy, who would sneer at his superannuated notions, and would expatiate, in a language, half Latin and half science, upon the Metaphysics of Botany, or some pleasant little theme of that sort. He found, on the contrary, a quiet, unassuming, well informed man, clever, and highly educated in his art, but more anxious to listen than to speak, as one to whom knowledge was teaching her noblest lesson *to be aware how little he knew*. "Mr. Oldacres," he thought, "has not had the great advantages which were given to me in those dear old gardens of the Horticultural Society under the wise supervision of 'the Doctor,' and yet how much have I to learn from one, who has spent a long life at work, at work upon the best material, and with the most costly tools." And the old man, seeing himself appreciated, was prompt on his part to acknowledge the acquirements of his new neighbour, to exchange information, and to compare old things with new. I met him one morning, returning from the Hall gardens, and he informed me that "Chiswick was a regular conjurer." He had just seen him "tie out" a young *Pimelia*, recently received from the nurseries, and he had made it look worth a guinea! And the best of it was," he went on to say, "that the fellow had no more pride about him than a *Dahlia* after a hard frost," and when he praised his handiwork, he only said "I wish you saw William May's."

And thus there arose between these two men, so dissimilar in aspect yet so congenial in mind, a sincere regard and amity, which deepened into a most true affection, when "the Gardener's daughter," quite as loveable as Mr. Tennyson's, went over from the Castle to the Hall, and precocious Chiswicks, as time went on, began to drive miniature wheelbarrows between Mr. Oldacre's legs. For the clergyman who made the true lovers one, was a true prophet, when he said, "Thy wife shall be the fruitful vine upon the walls of thine house," and whoever enters that pleasant home, once called the Den of Despair, and sees the bright young mother among her laughing little ones, beholds the realization of those other gracious words, preceding the words which I have quoted, "O well is thee, and happy shalt thou be!"

And while the pretty Mrs. Chiswick conducts the nursery department, and every year some "striking novelty" is added to her "hardy annuals," "quite distinct," and "a decided acquisition" in the happy mother's eyes, her husband is making admirable improvements in the spacious gardens of the Hall. His predecessor, old Mr. Woodhead, had been a hard-working man, and a good gardener as far as he went, but he was, metaphorically, a slow horse, more adapted for harness than for hunting, and when he had reached a certain point in horticulture, there he stopped in hopeless immobility, and no spurs could induce him to charge another fence. I remember, year after year, the same plants in the conservatory (ah, those were merry times for the aphids, "days of strength and glory" for the red spider!) the same designs in the flower garden, the same bouquets in the drawing-room, and the same fruits and flowers upon the table. I think I see his *Cinerarias* now, with their pointed petals (number unknown) widely separated, as though they hated one another. The ladies of the Hall were delighted indeed, when such flowers as "Lord Stamford" and the "Scottish Chieftain" (I am speaking of favourites in request six years ago) displaced those dingy specimens; and yet more gratified were they, when the summer came, and, sitting upon the pretty garden chairs of Mr. Chiswick's design, they saw the beautiful contrasts of modern taste, Flora's bright jewels set in gold and silver ("Golden Chain" and "Mangles's Silver"), and set so skilfully that, while each separate gem shone in its distinct and glowing beauty, the collective whole charmed the eye with a perfect unity. "Scarlet and goold, scarlet and goold, Tom Thumb and *Rugosa Calcy*," had been old Mr. Woodhead's motto; and of those he "bedded out" many thousands, making his gardens so gorgeous that strange carriage horses, emerging from the sombre shrubberies through which you approach the house, would actually shy at their sudden splendour, and the vivid brilliancy was so painfully unrelieved and monotonous, that it seemed almost to burn one's eyes.

Mr. Chiswick made a hundred other improvements, of which I have no time to tell. That damp shaded corner, under the trees of "the Long Walk," where nothing seemed to flourish but obnoxious fungi (they may have been delicious esculents according to the discoveries of modern mycology, but they had not an appetizing aspect) became a picturesque Fernery; the banks of the lake, which had always looked so

drear and reedy, are now planted with Rhododendrons, which reflect their glories in the admiring waters, when the time of flowering comes, and are always beautiful in their glossy sheen; a few trees were felled, and from all the front rooms you can see through the opening our village church in the distance, most striking upon a summer's eve, when its fine old western window blazes and bickers in the setting sun; here is a statue of "Contemplation" admirably posed, with some dark Yews, high and dense, for a background, and giving you at once the idea of a place "where ever musing Melancholy dwells;" there, passing through an arched stone doorway, you find yourself suddenly in Switzerland, where you may spend a day in admiring those charming little Alpine plants, nestling in the crevices and crannies of the rockwork, and may taste the Alpine Strawberries, if you please, though I warn you that this *Arbutus* is "Unedo," and that you will not desire to repeat the experiment; and, in brief, you will find, wherever you go, some pleasant proof of a refined taste and an untiring industry.

I must mention just one more instance, perhaps the most decided, of his improvements,—the transformation which he achieved in "the stove." It was an awful place, that stove, in the reign of king Woodhead; and Mr. Chiswick pretended, when in merry mood, that, on his first visit, "a mealy bug, of gigantic stature and ferocious dimensions, had lashed out at him like a horse." Certainly there was more to interest the entomologist than the florist in this remarkable collection. I suppose that the Orchids must have flowered at night, for I never saw them emerge by day from their residences of rotten wood and moss, where they seemed to exercise unbounded hospitality, and to keep open house for the lower orders of vermin. There were creepers which declined to creep; sticks trained to enormous globes, but showing no inclination to start upon their travels round them; and plants, on the other hand, which grew like the fairy's bean-stalk, *Allamandas*, for instance, stretching their arms all over the place, but of flowers "divil a taste;" there were tall thorny *Euphorbias* about as full of bloom as a hedgehog; there were *Begonias* with great cracks in their giant "ears," and places which looked as though bitten out by "elephants;" there were *Hoyas* and *Stephanotis*, whose every leaf called out, in dying pain, for "Gishurst;" and all the time these helpless, hopeless invalids were insulted and mocked by dirty little "tallies," who persisted with bitter irony in calling them "*Bellas*," and "*Splendiddissimas*," "*Magnificas*," "*Grandifloras*," and "*Elegantissimas*."

When I see the place now, I cannot recall its former appearance. The Orchids bloom, the *Allamandas*, the *Ipomœas*, the *Dipladenias*, the *Gloxinas* bloom, in all their delicate loveliness; the *Hibiscus* and *Passifloras* flower as they rise in profusion; and the plants of variegated foliage, the *Caladium*, the *Cissus*, the *Croton*, the *Begonia*, are models, both in the healthfulness of their growth, and in the symmetrical arrangement thereof. Here let us leave Mr. Chiswick, happily admiring a beautiful *Caladium argyrites*, and pass on to another member of our brotherhood.

Ah, mine old acquaintance, the terror of my childhood, the enemy of

my boyhood, the friend and faithful servant of my manhood, are you the next to sit for your portrait? I must have a new piece of canvass, and grind some fresh paints, for you!

S. R. H.

PINE CULTURE AT THE ROYAL GARDENS.

PRESS of matter prevented our noticing this subject in our last number. Our readers may probably remember our remarking, at p. 65, 1858, when, alluding to the fine specimens exhibited at the Horticultural Exhibition at St. James's Hall by Mr. Ingram, that they had been grown on the open-bed system. During the last autumn we had the opportunity allowed us of examining the manner of culture practised at the Royal Gardens more closely; and, through the kindness of Mr. Ingram, have permission to lay before our readers particulars of the very simple and economical principles by which the culture of the Pine has been brought to such success.

The pit in which the plants are fruited is of the ordinary shape, with a double sash roof 12 feet wide inside, 7 feet high at the back, and 3 feet at the front. There is provision made for a dung lining at the back of the pit, which, however, we were told was very rarely used. The pit is heated by hot-water pipes running along the front walls, to keep up the necessary temperature when required. The whole interior of the pit is appropriated to the plants, and is therefore occupied by the bed for the leaves to supply the bottom heat, which is 6 feet deep. The leaves are those of the Beech and Oak, used as they are collected, after having lain in a heap to get warm, whereby they are more easily compressed together when placed in the pit, a matter of importance, as it prevents their settling down too much, and also helps to preserve a steady uniform heat for a long time, which a body of leaves 6 feet in depth will maintain for 20 months if required, if put into the pit in good condition and made firm. When the bed becomes warm up to the surface, ridges of good yellow loam, formed of decayed turf, are placed 30 inches apart, and rather more than a foot in depth at the deepest part. The reason for ridging up the loam, instead of placing it evenly over the surface, is merely to economise the loam. On these ridges the Pines are planted, having been taken up from the succession beds by lifting them with a fork, and carrying them to their new quarters, spreading out their roots, and covering them with a few inches of loam pressed firmly over them; and the work is finished by giving the surface of the bed a moderate watering, to settle the earth about the roots. When once planted out, no further care as to bottom heat is taken with them; the deep bed of leaves over which they grow is sufficient to supply them with bottom heat during their growth and fruiting, and has even been known to ripen off two crops, though this is not recommended. The roots soon begin to spread themselves through their border, and extend themselves several feet in a horizontal direction. After a time they take to the leaf bed, the upper surface of

which after a few months begins to decay, and affords good pasturage for the Pine roots, which are no doubt greatly encouraged by the genial warmth of the bed below; at any rate the growth of the plants far exceeds anything of the kind we ever witnessed with plants in pots, or even all the attempts to grow them in the free soil over hot-water pipes. One division of the pit was filled with plants of the smooth-leaved variety of Cayenne, perhaps in the whole 85 plants,—and as our readers will understand what the vigour and size of the plants must be to produce the fruit we saw on them, we have obtained from Mr. Ingram the weight of a few of the largest, and also the average weight of the crop, a result, we venture to say, unparalleled by any previous attempts at Pine growing in this country or elsewhere.*

The successions are grown on the same principle, the suckers being planted out in low pits in loam as above, and over a bed of leaves; here they grow for 6, 8, or 10 months, as it may happen, before they are wanted to fill up the fruiting-houses, when they are merely lifted with a fork and carried to the fruiting-pits. The kinds grown are, the smooth Cayenne (of which one pit was entirely composed when we saw them), Queens, and the Prickly Cayenne. This system seems peculiarly to suit the Cayenne, of which no better evidence can be stated than the weight of the fruit appended, which has been produced from plants only 9 months old, and at the most trifling comparative cost. Mr. Ingram has most wisely given up growing Pines in pots for some years, and we think the extraordinary success of his system merits the widest application; and he has our best thanks for allowing us to make it known.

THE SLAUGHTER OF THE INNOCENTS.

VERBENAS.

As the day fatal to grouse, but beloved by senators and their friends—the 12th of August—draws nigh, there becomes a gradual disinclination on the part of the collective wisdom of the nation to attend to business, and considering that at present that business is carried on over the by no means fragrant waters of Father Thames, it is, perhaps, to say the least, excusable, that a man of sense should prefer, to close committee rooms of the House, the fresh breezes of the Scotch mountains, or the fragrant heather to the stinking waters of the river; and thus it is that what is popularly called the “Slaughter of the Innocents” takes place. Dear little bills, which aspirant members have introduced, which they have anxiously watched over, using every means to get them noticed and carried on, are consigned to neglect and destruction, and dropped bills are quite as numerous as dropped grouse for a time, much to the grief of the constituents, who have considered their member as a legislator, and “no mistake.” I had this scene in my eye when a friend and

* The average weight of 6 of the largest fruit in this pit was 8 lbs.; average weight of entire crop, 5½ lbs.

neighbour said to me, last August, "I wish you would come up and look over the new Verbenas with me, that I may know what to keep, and what to throw away." I called to mind the flaming descriptions with which they had been announced to the public in the spring—what terms of "magnificent," "splendid," "extra fine," "superb," had been lavished on them then—how we were assured that they were to beat everything that had ever been seen or heard of, and I shuddered to think of consigning the dear innocents to that limbo of all discarded plants—the dunghheap. However, it was to be done; and, steeled against all other influences but a desire to select the best, I went. The opportunity I knew to be a good one. The preserves were abundant, and as well stocked as those of his Grace the Duke of Rutland, before some of his murderous *battue* days; the sport would be excellent, though the lag for home consumption would not be very heavy, for I had, in my own little plot and elsewhere, seen a good many of them, and consequently knew pretty well what was before me. My friend, Mr. Banks, is well known as the raiser of Lord Raglan, Mr. H. Williams, Zampa, and others, and beds out somewhere about 1200 plants. Here, therefore, were to be seen both new and old in close vicinity, and their relative merits were easily compared. In looking over them, I came to this conclusion as to their general character; that they had not advanced in anything like the manner they had done two seasons back, and that perhaps we were just coming to that point in them which we seem to arrive at in other florists's flowers, where improvement seems hardly obtainable, though the perseverance of florists may perhaps falsify such a conclusion, or some lucky sport introduce an entirely new strain. It also appeared that the most celebrated growers are bringing out flowers very much like to one another, and that it would not be difficult to match, in each collection, plants almost identical in colour, form, and size. Taking all these things into consideration, it surely ought to be a matter of thought to those interested in the business, that great care should now be exercised in introducing to the public plants whose sure fate, in the hands of all real lovers of the flower, will be the manure heap. And now to begin.

First, let us look at Mr. Edwards's list. Her Majesty has been lately pricking for sheriffs; suppose we prick those of the 24 which appeared as new last spring. I should (and we did, I believe) select, as worth retaining, Comte de Morella, Eleanor, Lord Clyde, Lord Elgin, Mrs. Maclean, Gem, Mrs. Blyth, Conspicua, and perhaps—though this is doubtful—Mrs. Penington; thus only one-third of the whole lot suited our, perhaps, somewhat *cloyed* and fastidious taste. Ajax is a rambler; Bandmaster, Lightning, and others show no particular merit, and would pass in a bed unnoticed; but the others did appear to us possessed of real merit. Lord Elgin is an exceedingly dark variety, and though not what is wanted in shape—or, indeed, in habit or size—yet, for its colour, we must retain it until we get something better. Conspicua is really deserving of its name, and is sure at once to catch the eye, not only from its brilliancy of tint, but from its large size. Mrs. Maclean is also exceedingly bright, and large in size also. And now, Mr. Breeze, what have you to say?—a very nice little family, no doubt; that is, in your

own dear fatherly opinion. But our own, you know, are always paragons—never were such children—and how anybody can find fault with them is, no doubt, very surprising to us; but alas! so it is; some of them may be very pretty, but then we have as good; and others, though from their names we might conclude them to be super-excellent, yet, like too many of the Lavinias, Clarissas, &c., belie their grand nomenclature. Well, we thought Azucena, Ben Bolt, Fidelio, Etoile du Nord, and perhaps Il Trovatore, worth retention, but no others—rather sweeping, we fear. But, as I have said, we were quite steeled against all gentle influences, and were regular *Bluebeards* in our murdering propensities. Azucena is a new colour; Ben Bolt, soft in tint, and not at all like the jolly tar from whom it is named; Fidelio is of that undefinable colour which means anything, amaranth; while Etoile du Nord is a bright scarlet; Il Trovatore, with all due respect to the raiser and describer of it, is not a beat on Géant des Batailles, for it is one of those long straggling growers which run away from the centre as fast as they can, leaving it all bare, and then about two feet off up comes the bloom; individually, both pip and truss are fine, but this bad habit will effectually exclude it from good society. Zampa is good in colour, but I fear the truss is not sufficiently large for these days. Amongst the new ones from our lively neighbours over the water, who would do much better in trying to raise flowers than cannon-balls or steam rams, or any such nasty things, the following will be, we think, worth growing:—Faust, a large truss, soft rose colour; Madame Denis Blain, rose, with maroon eye; Leon Manset and Madame Nardi, large Brilliant de Vaise style of flower. Besides these, there is Lady Cotton Sheppard, a bright rosy purple with white eye; Isabella, crimson, with dark eye; and Striata perfecta, which will drive old Sarah out of the field, I think. We should have then to retain, if our judgment be correct, and we by no means say that it is so:—

Comte de Morella, deep crimson, lemon
eye

Eleanor, rosy crimson, white eye

Lord Clyde, deep scarlet

Lord Elgin, nearly black

Gem, dark purple

Conspicua, deep crimson, lemon eye

Mrs. Maclean, carmine

Mrs. Blyth, light rose, yellow eye

Azucena, fine dark lavender

Ben Bolt, rose

Fidelio, crimson

Etoile du Nord, crimson scarlet

Faust, rose

Madame Denis Blain, rose, crimson eye

Leon Manset, rose (?)

Madame Nardi, rosy crimson

Lady Cotton Sheppard, rosy purple,
white eye

Isabella, crimson, dark eye

Striata perfecta, white and lavender,
striped

*Let us again repeat, that this list is submitted simply as the matured opinion of those who have taken pains to arrive at a true decision, and no other motive but a desire to grow the best, as far as we knew, entered into our minds. It is now submitted, in the hope that it may prove useful to those who wish to add to their collections. It is a good time to do so now, and propagation may go on rapidly where the means exist for so doing: may our frames have a thriving family!

D.

Deal, Jan. 25.

CULTURE OF THE POMPONE CHRYSANTHEMUM.

I HAVE been induced to pen the following from the perusal of various treatises by different practical growers on the culture of that beautiful autumn flower, the Pompone Chrysanthemum. In these short works I have noticed remarkable omissions of most particularly important points; and it is to supply these omissions that I have jotted down a few plain directions for the benefit of your readers. The course of treatment herein recommended is the one which I have pursued with the success alluded to in the *Gardeners' Chronicle* for 1858 and 1859, in the "Midland Florist," and in many other papers not devoted exclusively to horticultural subjects. Six first prizes in two years sufficiently attest the merits of my plan of cultivation, and render needless anything that I can say in its praise. I have omitted no point whatsoever, have kept nothing secret, but have disclosed the whole truth and nothing but the truth. Great as is the perfection to which the Pompone has been brought by skilful nurture, yet we may hope for even larger results, from greater experience, not so much in the size of the plant as in the quality of the flower. As regards the former particular we desire nothing better than what we have obtained, seeing that we have grown plants in 8-inch pots, and on a single stem, more than $4\frac{1}{2}$ feet across, and bearing from 1000 to 1200 flowers. But if we direct our attention too exclusively to size of plant, we are apt to lose sight of quality in the bloom. By quality we mean not only the size but also the colour, which we esteem far more than extraordinary largeness in the plant.

I shall commence my remarks with the treatment of the plant in its earliest stage, putting them, for brevity and clearness sake, in the form of a monthly register.

December.—Select the strongest cuttings from healthy plants, *whose variety is true*; extract all leaves and eyes to the height of about three inches. Put each cutting in a three-inch pot, in compost, which should consist of rich loam and silver sand. Then plunge the pot in a cold frame filled with ashes, taking care to exclude frost and chilling winds. Water sparingly.

January.—The plants will just be starting. Keep them in the same state, gradually hardening them by admitting more air.

February.—Repot into 48's. Add to the compost old cowdung and broken oyster-shells. Place the plants in the same frame; give them at every suitable opportunity abundance of air, keeping them moderately damp.

March.—Continue the same course. Toward the end of the month the earlier plants will be far enough advanced for their first stop.

April.—The plants are now growing rapidly, and require shifting into 32-sized pots. Give them plenty of drainage, and use as rich a compost as you can. I employ one composed of rich fibrous loam, cow and pigeon dung, silver sand, and a little soot. Water continually with weak liquid manure, and keep them exposed as much as

possible. Success much depends upon the care taken in April to render the plants thoroughly inured to any change. Your plants have now made good growth. Remove the bottom leaves and eyes to the height of three inches ; take out the crown eye, and allow the plant to make from seven to ten breaks.

May.—Repot with the same compost into 24's. The shoots are now at least 4 inches long. Carefully peg them out with thin painted wire. Should the plants have made more than ten breaks remove the weaker. Plunge the pots half way in the open ground, having a southern aspect. Give the plants their second stop.

June.—Leave the plants as they are till the latter end of the month, when they will be sufficiently advanced to be stopped again, and shifted into 16's. The same compost as before, with an additional quantity of oyster shells. Bury the pots three parts up in the same ground, giving the full heat of the sun. Strictly attend to pegging down.

July.—Be most careful to keep them pegged, but not too near the ground, lest they should root. Train the shoots, so as to preserve a perfect circle, and fill up all vacancies. In this month, the plants are very liable to break ; care must be taken in this respect.

August.—Take a favourable opportunity for removing all the pegs, carefully lifting the plant, cleaning off all dead leaves, and searching thoroughly for mildew. Should this have made its appearance, give the plant a good dusting with flowers of sulphur ; and, before replacing it, stop the bottom of the hole in the ground from which the pot has been removed, with slate or tile, to prevent the plants rooting through. The best way to hinder the lateral shoots from rooting, is to support them with pieces of tiles or wood, placed round the rim of the pot.

September.—Since this is the month of fastest growth, attend in the early part most sedulously to pegging and training the shoots into the final form. Keep the shoots down as close as possible. Give plenty of liquid manure, and syringe three times a day—morning, noon, and night ; occasionally washing them with a little tobacco water, which will at this season keep away the green-fly and mildew.

October.—When the buds have made their appearance, the plants should be taken up, their pots cleaned, all the dirt and grit syringed off the leaves, and sticks, radiating from the centre, fixed horizontally, and connected together by one or two circles of twine or fine wire. Tie the outside shoots to these, as the plant cannot possibly support their own branches ; and remove them into a thoroughly clean house, in which they are to bloom. Give plenty of air, and syringe not only the Pompones, but the stage also, in order to diffuse moisture. Shut up early, with a little sun if possible.

November.—The work is done ; and, if these rules have been properly attended to, instead of 100 poor plants, scraggy and scarcely worth looking at, we have seen a dozen which will fill a large stage, with thousands of fine flowers, and whose foliage is truly beautiful. They will last nearly to Christmas, when scarcely any other flower is to be seen. We like to form our own plants when intended for exhibition, we like to arrange our flowers in the best possible manner ; and therefore think it beneficial to introduce a few sticks and ties, as the plants

may require, adding anything to them which will conduce in any way whatsoever to neatness and cleanliness.

I cannot better conclude this short paper than by mentioning a few of Mr. Salter's new varieties of Chrysanthemums, which, I feel assured, when grown in connection with the old well-established favourites, will form an extremely beautiful collection. I paid his nursery a visit, and was rewarded by a sight which would delight every lover of these beautiful flowers.

The following are the best kinds with which I am acquainted :—
 Pompones: Miss Talfourd, pure white; Adonis, rich pink; Mrs. Dix, light pink; Bob, dark brown; Ceres, purplish pink; General Canrobert, bright yellow; Helene, rosy violet; Cedo Nulli, pure white (Anemone-centred); La Vogue, yellow, tipped brown; Andromeda, cream yellow, tipped brown; Modèle, good white; St. Thais, chestnut; Salaman, carmine; Madame Rossalon, rosy lilac; Duruflet, rosy carmine; Dr. Bois Duval, dark red; Maid of Saragossa, rosy lilac; Baron d'Adsward, lilac and white; Bernard de Rennes, yellow and buff.

More common varieties, worth growing: Adèle Presset, Alexander Peel, Argentine, Aureole, Autumnum, Beryl, Brilliant, Bijou de l'Horticulture, Columbine, Cræsus, Drin-Drin, Fenella, Fleurette, Justin Tissier, Madame Alibert, Madame Fould, Madame Mieliez, Riquiqui, Aurore Boreale (Anemone-centred Pompones, in which there is great beauty), Golden Cedo Nulli, Astrea, Mr. Shirley Herbert, Mr. Astie, M. Achille Dutour, La Sapagon, Atropos, Eugene Langanlet, Golden Drop, Mr. Gush, Reine des Anemones.

Large varieties, the best, both for colour, size, and abundance of bloom, with good habits, for pot culture: Annie Salter, yellow; Cloth of Gold, golden yellow; Christine, rosy pink; Valérie, brown and orange; Vesta, pure white; Aurora, yellow; Cassandra, white, tipped rose; Madame Closs, rosy lilac; Pilot, deep rose; Mount Vesuvius, large fiery red; Sulphureum superbum, sulphur; Leon Lequay, lilac; Progne, crimson carmine; Madame Domage, pure white; Bossuet, carmine; Princess Marie, rosy pink; Julie Lagravie, dark crimson; Auguste Mie, red, tipped with gold; Hermione, light rosy pink; Golden Lotus, bright yellow; Prince Albert, orange crimson. Miss Augusta (Holland), is a great advance on all preceding varieties in its way.

All the above I have myself thoroughly inspected and selected, and can recommend to any person desirous of growing this popular flower. Let them only treat them after the manner just described, and I hesitate not to say that they will be highly gratified with the result.

JOHN WIGGINS,
Gardener to Edward Beck, Esq., Worton Cottage, Isleworth.

PANSIES.

HAVING paid a visit to some of our most celebrated gardens this last spring, and looked over the different Pansy beds, I find there is much to be learnt as regards setting out and arranging the different colours, in order to give a pleasing appearance. I am very much inclined to think

there is nothing that can interest any one in the spring of the year more than the Pansy. I therefore crave space for a few remarks which I wish to make respecting this showy spring flower. The kinds I allude to I have seen this season. The varieties named are equally fit for show as for bedding purposes. In my opinion nothing can look better than a nice bed of Pansies on a lawn. The first I will mention is Ariadne, bright purple self, the finest Pansy I ever saw; I rather think it was exhibited at Haltwhistle South Tyne Pansy Society in June, 1857, by Mr. Douglas, of Rosebank Nursery, Edinburgh, and obtained a certificate for being the best self Pansy in the room. Also Royal Purple obtained a Certificate at the Scottish Pansy Society, Edinburgh, in June, 1859.

SELFS.

Earl of Derby, black, beautiful
Duke of Sutherland, rich claret
Flower of the Day, plum
Indian Chief, dark shaded blue
Jeanni, shaded blue, extra fine
Mr. Dodwell, yellow

Royal White
Sir C. Campbell, dark
Uncle Tom, deep mulberry
King of Purples, dark maroon, rich
Canary, yellow
Andy, black

Miss Bentley, gold and reddish maroon; it obtained a Certificate in June, 1857, at South Tyne Pansy Society. This variety is, therefore, not new, but it will beat half the new kinds out. The following are good sorts for bedding purposes, and should be planted largely in every spring garden; they consist of some of the best of the yellow ground kinds.

Duchess of Wellington, yellow and deep purple
Lord John Russell, yellow and crimson
Master Grey, gold and maroon
Sir John Cathcart, gold and crimson
William, yellow and dark maroon, extra fine
Rubens, yellow and rosy purple

Perfection, rich gold and maroon
Charles Turner, yellow and crimson maroon
Cyrus, gold do.
Emperor Napoleon, rich yellow and bronzy purple
Victory, yellow and red

There is another class of Pansies, namely, the white and straw ground. Miss Reid, white and blue, extra fine, was awarded a Certificate of Merit at South Tyne Pansy Society; Countess of Rosslyn also obtained a Certificate at Edinburgh in June last, for the best white ground Pansy exhibited; and I can say it is by far the best, if bloomed properly.

Earl of Mansfield, white and blue
Miss Talbot, white and dark purple
Miss Nightingale, white and deep purple
Louisa, white and blue, extra fine
Lady Napier, cream and blush purple

Col. Windham, straw and deep purple
Rebecca, white and light purple
Indispensable, white and purple
National, white and lilac
Picotee, white and pale porcelain blue

Having thus named a number of good Pansies of each sort, fit either for exhibition purposes or for bedding, allow me to repeat that there is no plant more worthy of cultivation than these little gems for small beds or edgings, if arranged so as to have dark purple in the centre, gradually shaded down to the edge, which should be white. I might

add a few more, but these will, I think, be a great gain to those who have them. Season, of course, has a great effect—in fact, I should say it makes all the difference. Pansies always do well in a moist summer. I will in a future No. give hints on the cultivation and general management of the Pansy, which, I have no doubt, may interest some of your readers.

Iford Lodge, Sussex.

CHAS. B., JUN.

SOILS, FRUITS, AND MANURES.

(Continued from page 20.)

WE sometimes hear the observation made that the original quality of the soil is not of so much consequence for fruit, as it can be easily improved by manuring; indeed, with some, this reference to the manure heap is the universal remedy for unhealthy fruit trees, and only serves to show how imperfectly the action of soils on the constitution of fruit trees has been noticed. So far as our experience leads us to give an opinion, we believe the application of manure to most stone fruits is fatal, and to others a very equivocal remedy, for a soil naturally unfavourable. Many kinds of fruits are known to be extremely fastidious as to soil, and it is equally true that some varieties in each class will grow more freely than others in unfavourable soils; the question to be solved is, to account satisfactorily for so great a difference in members of the same family. We shall not go so far as to say that a particular soil and climate originates the peculiarities known to exist among fruits; but one thing is certain, that while some varieties of fruit refuse to grow with any vigour beyond a very limited range, others of the same class appear almost indifferent as to soil or situation. With these facts before us, may we ask vegetable physiologists the question, whether they have met with such a principle as a vegetable *idiosyncrasy* in their investigations, to explain the likes and dislikes, the partialities and prejudices (if I may say so), of fruit trees for certain soils and localities?

The Vine, which, under a few restrictions as to soil, flourishes throughout the temperate regions of the Old World, producing its luscious fruit, and no less generous juice, from the 21° to 51° of north latitude, when transported to America, produces fruit of very inferior value; its rich vinous flavour deteriorates, and its juice cannot be converted into anything approaching the wines of France, Spain, or the Rhine, and yet it is difficult to understand why this is the case. The climate of the United States is equally bright and warm as in those parts of Europe where the richest fruit and most generous wines are produced, and there is not that appreciable difference in the soil to account for the change produced in a European Vine when transported across the Atlantic. Indeed, we find those varieties of the Vine indigenous to the American soil especially vigorous and productive, and as such are almost exclusively cultivated, though most decidedly inferior.

It is easier to account for the deterioration of British Strawberries when grown in America; the dryness of its climate and severity of its winters would affect both the quality and constitution of Strawberries, natives of the milder climate of Britain; and that varieties raised in America are found to be stronger in constitution and surpass ours in flavour, when grown together, is not surprising. The same thing happens with their best kinds, when fruited in this country, as they are inferior in that delicacy and piquancy which characterise our best kinds.

But although the climate of America does not suit European Vines or Strawberries, Pears and Apples grow to great perfection, with a few exceptions. Some of the Apples raised in America are not surpassed by the best European kinds, and America may well be proud of originating such sterling varieties of the Plum as the Jefferson and Washington, as well as several first-rate kinds of Peach and Cherry. But looking at the question in reference to our immediate inquiry, we find there, as at home, and elsewhere, that the same peculiarities as to soil and locality exist, according to the annals of American pomologists.

But let us again look at the fruits of our own country. The Cornish Gilliflower Apple makes a vigorous tree and furnishes its rich-flavoured fruit in abundance on the clay slates and decomposed granite of Cornwall, but is weakly and bears inferior fruit everywhere else, so far as we have ascertained. Take, again, that fine Apple the Bess Pool; located on the marls of the old and new red sandstones of Shropshire, it grows to a large size, and when out of its teens is a prolific bearer; yet we do not remember ever seeing a respectable tree on the London clay or the Eastern side of England; on the calcareous soils near the writer of this, it can only be said to exist. To conclude: why is it that the Winesour Plum luxuriates on the magnesian limestone formation exclusively? We have tried it on several descriptions of loams and clays, but its growth is puny, compared with the trees we have seen in North Notts and Yorkshire. We could readily multiply these instances, were it necessary to do so.

The steps taken by the Fruit Committees of the Pomological and Horticultural Societies, to ascertain the cause of these peculiarities in the habit, flavour, and productiveness of fruits, as affected by soils, are of the utmost importance to fruit growers, and we hope in time that sufficient evidence will be collected to form exact data as to the influence certain soils exercise on the quality of fruits, which, once ascertained, will greatly facilitate their labours, and make success more certain.

(To be continued.)

EXPERIMENTAL GARDENING.—No. II.

Fruit Tree Training.—The object of training fruit trees consists in so arranging their branches against walls, trellises, &c., that the foliage may be more fully exposed to the influence of light than when growing in a normal state. Training also, assisted by the twin operation of

pruning, helps to keep in check the tendency of trees to make more wood than is required for producing fruit under the artificial circumstances in which they are placed; and as the wood selected is arranged under the most favourable conditions for being acted upon by atmospheric influences, the formation of fruit buds is thereby promoted. Training may be further defined as an artificial process for bringing the fruit-producing powers of the tree operated upon within certain limits of control, so as to induce the production of the largest quantity of fruit commensurate with the vital powers of the tree to bring it to perfection.

Besides the property of inducing a more fruitful habit in trees by training, where they are planted and trained against walls with a southern aspect, an improved climate is produced, owing to the reflection of the sun's rays from the face of the wall, and also by the absorption of heat by the latter, which, given off again slowly, helps to maintain a temperature somewhat higher than the surrounding air to the trees during the night; hence fruits of a warmer climate than Britain, as the Peach, Fig, &c., are ripened to perfection on walls with a sunny aspect, and those of a more hardy description, as the Plum, Cherry, Pear, &c., by being trained against walls (excepting, of course, on the north side) are much improved in size, and ripen earlier. Training on espaliers, or rails, as well as the different forms of training standard and bush fruit trees, cannot be said to confer any advantage of improved climate, and we must look to training alone as the means of obtaining better crops of finer fruit, by inducing the formation of fruit buds, and directing the energies of the trees to the proper maturing of the fruit more completely than would otherwise take place.

Different forms of training trees against walls have been practised by gardeners by way of adapting them to the objects either of checking a too free habit, or of more effectively promoting fruitfulness. Some of these are too artificial, as well as in opposition to the natural habit of the tree, and the best fruit growers are now content with the two methods in general use, namely, the *horizontal* and *fan-shaped* systems; to which may be added, as more recent, the vertical and angular mode; while for espaliers, &c., the horizontal, by directly adapting itself to the shape of the trellis, is the most in use. The modes adopted for pyramidal and dwarf Pears, Apples, and bush fruits, are various, and will be noticed hereafter in detail.

We have stated above that training fruit trees is an artificial process, one object of which is to increase their fruitfulness; and as the space allotted for them against walls generally necessitates a curtailment of their growth, the cultivator has to guard against the tendency of the tree to exceed its assigned limits, and also to keep the middle of the tree filled with bearing wood. With the Pear the horizontal form has been adopted as a means of checking its too free growth, but now that *root* management (which includes the preparation of the border and root pruning) is so much better understood than formerly, the checking of an over luxuriant, or improving an unfruitful habit, is more effectually provided for by the above means than by any special arrangement of their branches for the purpose, bearing in mind, however, that under any system it will at times be found necessary to elevate or depress the angle at which either

too weak or too strong shoots are trained, to strengthen or reduce them as the case may require; from what we have stated above, it will be seen that we include root pruning as a part of the system of training.

We may therefore take the *Fan* method of training as answering nearly every purpose, and also of being best adapted to general culture. In recommending the *fan*-shape as the simplest, and therefore the best, to adopt for the Peach, Apricot, Plum, Cherry, and even Pears, we by no means wish it to be understood that we advocate that precise adherence to training the branches in an exact straight line radiating from the stem, which is so frequently insisted upon, and shown by woodcuts in many gardening works, having frequently seen the utter failure of all such extreme methods for bringing the shoots of the Peach, Apricots, &c. (which naturally grow in a waving line), into the required angle, the twisting and pinching inducing gum, canker, and finally death to the branch. With the Cherry, Apple, and Pear more correct lines may be carried out, owing to these trees forming straighter shoots, but we would never insist on a too rigid adherence to straight lines even with the above, if it incur much twisting of the branches to effect it. So far as our experience goes with respect to horizontal training, we should confine it solely to the Pear, and even with that fruit we question whether other forms are not preferable.

From our own experiments with the Apricot, Plum, and Cherry, we can affirm that horizontal training is quite unsuited to their habits, and confers no other advantage. The Apricots under our care, like those at many other places, are subject to lose large limbs suddenly, and it has been thought that severe pruning was one cause of the failure. To try the experiment of growing the Apricot, some years back, on the non-pruning system, we took 12 maiden trees, and planted them against a south wall; the plants were never headed back: we simply trained the leader vertically, and the lateral shoots horizontally, and so continued them until the trees reached the top of the wall; the trees were 12 ft. apart, and we hoped we had solved the question as to growing Apricots free from gumming by non-pruning. However, we were disappointed; the horizontal branches in four or five years after planting commenced dying, and the trees in a few years bore a ragged appearance. Only three are now left, and those much mutilated, and as the gaps made by the branches going off cannot by any means be so well filled up as when the fan-shaped form is adopted, the system is decidedly inferior to fan training. With the Plum and Cherry the side branches never grow freely, as the flow of sap seems confined too much to the main stem, which keeps throwing out wood in excess, and thereby weakening the lateral branches, a defect we could never properly overcome. So far, therefore, as regards horizontal training to these kinds of fruit trees, we consider the unequal distribution of sap prevents that fruitfulness which it is the object of training to produce.

J. D. S.

REVIEW.

The Gardener's Vade-Mecum and Spring Catalogue for 1860.
 JAMES CARTER & Co., Seedsmen and Florists, 237 and 238,
 High Holborn, London.

THIS annual trade list of the above firm has just reached us; we have on former occasions noticed what care and expense, and we may add, talent, are now bestowed on Horticultural Catalogues, which have become quite a feature of the day. Of these, the one now issued by the Messrs. Carter is certainly one of the most remarkable, extending to 80 pages quarto of closely printed matter, and embellished with a plate of Annuals, drawn and coloured by Mr. Andrews. The lists show a very extensive collection of plant and flower seeds, of both home and foreign growth, and vegetable and agricultural seeds, bulbs, &c. Very clear yet concise descriptions are given of each plant, together with brief hints as to culture; and, in addition, an admirable summary of culture is appended to each genera of plants, forming a valuable guide for non-professionals. A treatise on the culture of Asters, Stocks, and Balsams appears as a translation from the original German; and there is also a complete calendar of garden operations. Our space forbids our giving an extract, which we should otherwise have done; we can therefore only say that the work will amply repay for a perusal both the professional gardener and all interested in gardening, and reflects great credit on the Messrs. Carter.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—Plants of the former, which set their buds early in autumn, and have been at rest for some time, may, where wanted in bloom as soon as possible, be placed in a moist temperature of about 55° to 65° , where they will soon open their flowers. See that plants placed in heat are properly supplied with moisture at the root, and syringe them over-head morning and evening. Plants of Bealii, which may be wanted for early blooming next winter, should be placed in a growing temperature as soon as convenient, first repotting it if necessary. Attend to last month's directions for the general stock, and if any of the specimen plants remain untied get this done as soon as possible. Camellias which have done flowering, and have their wood buds well up, may be placed in a gentle heat; a vinery which is being started will be a good situation; first repotting those that may be found to require more pot-room, well cleaning the foliage, and cutting back any straggling shoots, so as to secure compact bushy plants. *Conservatory.*—This house should now be gay with plants named in the last calendar—Hyacinths, Chinese Primulas—double and single; Mignonette, forced Azaleas, &c., and every care and attention should be given to the preservation of the beauty of the plants for the longest possible period. To effect this, a steady temperature of

about 45° should be maintained by fire-heat, giving sufficient air during the day to prevent injury from stagnant moisture in the atmosphere, and allowing the thermometer to rise to 55° or 60° with a little back air on fine bright days. Keep everything perfectly clean here, and endeavour, by effective arrangement, to make the most of the plants at command. See that Camellias, Acacias, and other things planted in the beds or borders which bloom about this season, are properly supplied with water at the root, giving a thorough soaking to such as may be found to require it, using water as warm or warmer than the temperature of the house. *Cold Frames*.—Last month's directions will be applicable to the general stock here. Calceolarias and Cinerarias do much better in pits and frames, provided they can be efficiently guarded from frost, than mixed up in the greenhouse with hard-wooded plants which, being in a dormant state, require a cool dry atmosphere, with a free circulation of air; and, now that the season is so far advanced that we may hope to be able, even in cold frames, to guard such things from frost, they should be collected together and placed in pits, or frames near the glass, first repotting such as require this attention; keep as close as can be done without injuring the foliage by damp, but a little back air should be given on the forenoons of bright days, shutting up early in the afternoon and covering early when there is the prospect of frost. Such things as Verbenas, Petunias, Lobelias, Ageratums, variegated or other Geraniums, &c., of which a large increase may be required before planting-out time, should be at once removed to a moist warm atmosphere of from 55° to 70° , placing the plants close to the glass, repotting such as may require this, and using every means to secure an ample stock of strong cuttings as soon as possible. And, unless some better provision for propagating such things is at command, a dung-frame or pit should be prepared at once, in order that it may be in readiness for cuttings as soon as these can be procured. Early propagation is the only certain method of securing strong well prepared plants at planting-out time, and this is the class of plants to secure a good display in the flower garden early in the season. Keep every thing perfectly clear of green-fly. *Greenhouse*.—A rather dry atmosphere, with a free circulation of air on every favourable opportunity should be aimed at here for the present, still keeping the plants on the side of dryness at the root; but this must not be carried too far; and where a plant is watered, enough should be given to fairly moisten the ball. Towards the end of the month young stock of New Holland and other plants, which it may be desirable to increase in size as fast as possible, should be collected and placed where they can be kept rather closer and afforded a somewhat moister atmosphere than the general stock, giving air against them very sparingly. Such plants should, however, first be cut back as may be necessary, and nicely tied out, so as to secure a well shaped foundation for the future specimen, and they must not be allowed to suffer for the want of pot-room. And such things will require very careful watering at the root, as either too much or too little will be dangerous in the extreme. See that every thing is free from aphids and mildew. Leschenaultias are particularly liable to be attacked by the former, and,

in the hands of inexperienced growers, are often ruined before it is observed that they are attacked; and *Boronias*, particularly *B. pinnata* and *B. serrulata*, to the latter. *Flower Garden*.—Get alterations finished as quickly as possible, also take up and level turf when necessary. The present will also be a good time for re-arranging herbaceous plants where this may be necessary, and also for preparing ground for fresh plantations of them. These are too often planted in poor badly prepared soil where they cannot reasonably be expected to produce much effect; but many of them deserve better treatment, particularly *Phloxes*, which are amongst the gayest and most useful of autumn blooming plants, and these should be afforded good, deep, rich soil, and not crowded or planted under the shade of trees, or where they will be robbed by roots of trees or shrubs. Most herbaceous plants produce the finest blooms upon plants of moderate size, and old spreading stools should be taken up and divided, the ground well prepared by deep digging and liberal manuring, and then replanted. See that *Crocuses* and other bulbs in the beds are not being destroyed by mice.

Fruit (hardy).—Finish the pruning and nailing of *Apricot* trees as speedily as possible, and see that blinds or other covering material is in readiness to cover the trees by the middle of the month, for *Apricots* require to be protected before they come into flower. If the weather is severe at this time they are often killed in the bud; but whatever covering is adopted, it ought to be so arranged as to be easily removed from the trees in the day-time, when the blossoms begin to expand; otherwise more injury will be done to the crop than if the trees were not protected at all. If advantage has been taken of frosty weather to wheel manure on the quarters or other places occupied by small fruit, lose no time in getting it forked in, when the weather is dry and favourable; and finish the planting of all fruit trees before the month is out, mulching them as before advised; also stake newly-planted or other trees that may require it in exposed situations. Towards the latter end of the month top-dress *Strawberry* beds with leaf-mould or short dung, that is, when they are growing thickly together; if in rows, no time should be lost in getting the ground forked between the plants, if not already done. New plantations may now be made, choosing a fresh piece of ground; and see that it is properly trenched and manured before planting. Give plenty of air in clear weather to glass cases, or walls covered with glass, orchard houses, or any other glass structure that is not heated, in order that the trees may not get excited too soon in the spring. The trees should all be pruned and top-dressed, especially those in pots. Go on with the pruning, &c., of wall and standard trees, according to previous instructions. *Forcing Ground*.—Plant out such *Cucumbers* and *Melons* as were sown last month in pits or frames, and maintain a good heat in the beds by turning and renewing the linings, and give air on every favourable opportunity. Water sparingly in dull weather, and destroy green-fly on its first appearance. Sow *Beechwood* or other *Melons*, also some *Cucumbers* to follow in succession. Plant *Ash-leaf Kidney Potatoes*

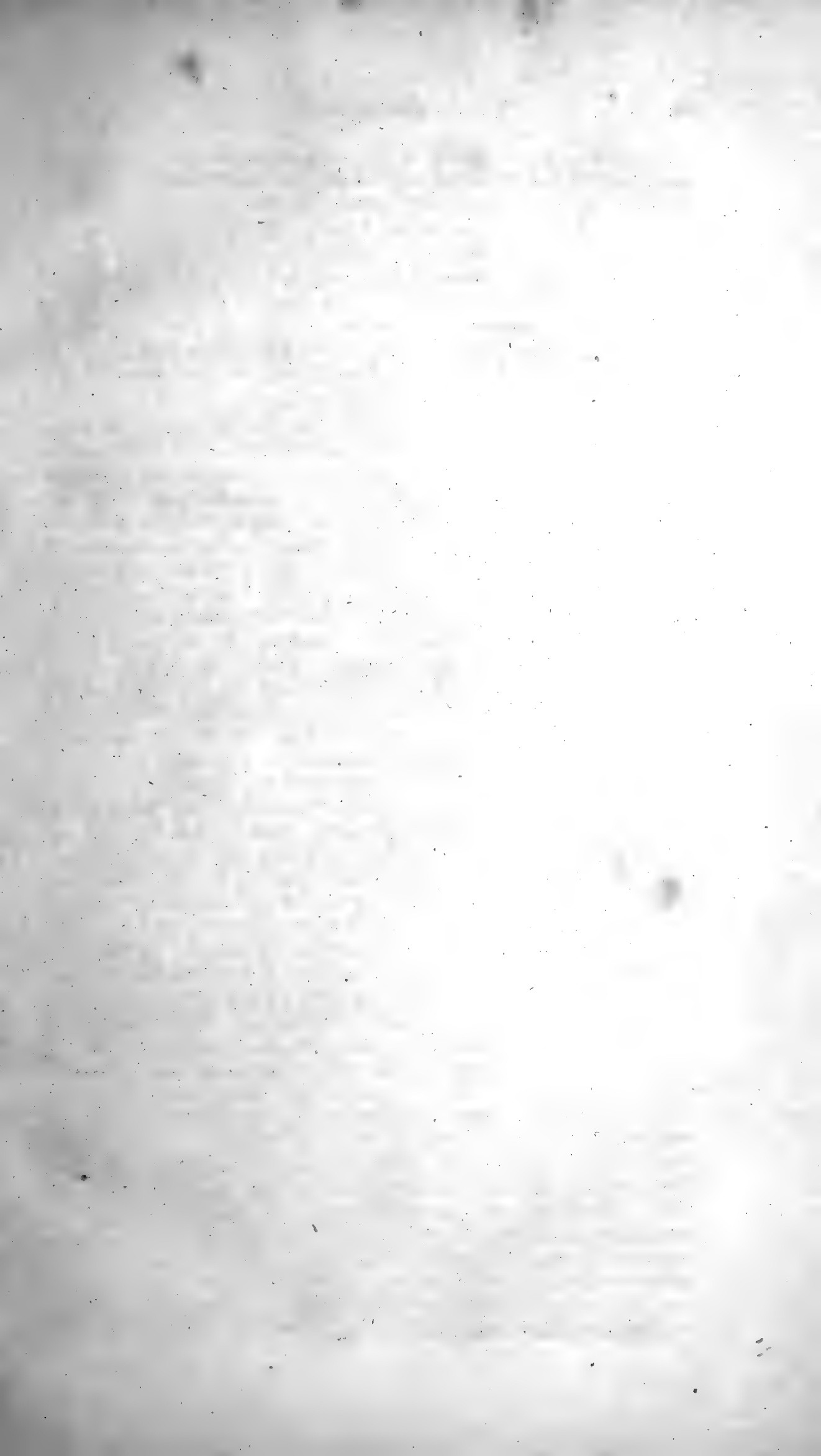
in frames, and those speared last month should be planted on a slight hot-bed; earth up those in pots, and remove them to a place where they may get plenty of air and light. Horn Carrot and early Radish should be again sown on a slight hot-bed to follow in succession. Give plenty of air to Peas in pits every fine day; and place a fresh supply of Asparagus, Seakale, and Rhubarb roots in the forcing pits, and attend to the linings of those forced in the open ground. Keep a good heat to French Beans, and syringe them occasionally to keep down the red spider. Sow succession crops in pots of the early dwarf kinds, and pinch out the tops as soon as they have made the second leaf. Bring in a few more roots of Taarrgon, Mint, and Chives; and make a sowing of Basil and Knotted Marjoram, and Mustard and Cress every few days. Prepare horse droppings for Mushroom beds, and spawn those already made when the temperature of the bed is about 65° . For other matters under this head see last month's directions. *Peaches and Nectarines*.—Attend to the disbudding in the early house, by removing or pinching all strong or foreright shoots that are not required to furnish a supply of bearing wood for the following season. As soon as the fruit is properly set, the night temperature may be increased from 5° to 10° , as well as through the day in proportion. Give plenty of air, and use the syringe freely; keep the trees at all times free from green-fly by fumigating with tobacco, and attend to previous directions for the management of the succession houses. *Plums and Cherries* at an early stage of forcing require similar treatment to the Peach; commence with a low temperature with plenty of moisture, and admit air freely as soon as the buds begin to burst. *Pines*.—Attend to previous directions; and, as the days lengthen, the temperature should range a little higher than last month. Prepare soil to be in readiness for shifting the plants at the end of the month; leaves or tan should also be got ready for renewing the beds when required. Keep up a good moist heat in the fruiting pit, and do not let the plants suffer from drought. Fruiting plants do well planted out at this time on ridges of free porous loam, mixed with a good portion of rotten dung. This may be done either before or after they are started. *Kitchen Garden*.—The severe frost in December made sad destruction among the green crops in this department. Broccoli and all the Brassica tribe have suffered more or less in most parts of the country; therefore no time should be lost in making sowings under glass of Cauliflower, Cape Broccoli, Lettuce, and Early Cabbage, and forward the plants as speedily as possible, to be fit for planting out in the spring. The Early Forcing Cauliflower is an excellent variety for sowing now; it will head much sooner than other kinds. Make sowings of Peas to follow in succession such as the Emperor, Warwick, and Dickson's Favourite; Maclean's new Dwarf Marrow Pea is an excellent kind, and may be sown at the end of the month. Sow Longpod and Windsor Beans, and plant out those that were laid in to spear last month. This may be done as soon as they are an inch out of ground. About the middle of the month plant Ashleaf Kidney Potatoes. Sow Early Horn Carrots, Radishes, Brown Cos and Cabbage Lettuces, Round Spinach, Turnips, Parsley, and a little Onion, on warm borders, and Parsnip at the end

of the month, if the ground is dry. Plant Garlic and Shallots and autumn sown Onions in rich soil. Make new plantations of Tarragon, Mint, Chives, and all kinds of herbs. Get the ground intended for the main crops of Onions, Carrots, Parsnips, &c., in good condition, by forking in dry weather; and manure and dig all vacant ground intended for other crops as speedily as possible. Cover Rhubarb and Seakale in the open ground with pots or leaves, and give air to Cauliflowers and other plants under glasses.

ERRATA.—Page 29, 5th line from top, read, "Those already started."
7th line from top, read, "when the plants are dry."

FLORISTS' FLOWERS.

Auriculas.—The time for topdressing has now arrived, let the compost be light and rich. Those who have not used much stimulant in the autumn potting may use nearly all cowdung, well rotted, and some silver sand to keep it light and open. Several questions on this flower having been addressed to me in private correspondence, I hope the writers will be good enough to take a short article in the present number as an answer to their inquiries. *Carnations and Picotees*.—These may now have a good careful hand-picking given to them, the soil stirred, a more liberal supply of water, and plenty of air; but beware of those impudent sparrows, who have a great love for the tender hearts of the young stock. Let your compost be now turned over and got under cover, ready for repotting; hand-pick it, if possible, for fear of wireworm. *Dahlias*.—Those who wish to be early in the field will now start their roots by putting them into a gentle heat. Avoid the mistake of forcing too much—this is only tolerable where a large stock is required from each root. *Pansies*.—The first week in February is a very good time for repotting, and there is no way so effectual for securing good blooms. You can thus circumvent those terrible depredators, *snails* and *slugs*. Let the compost be sweet good loam, cowdung, spent hotbed-frame dung, leaf mould, and sand. Topdress beds if you grow them thus, and plant out to fill up any vacancies. *Pelargoniums*.—If you want specimen or exhibition plants, great attention must now be paid to tying-out and watering. In doing the former only judgment and experience can be safe guides—directions are not of much use. A sight of Mr. Turner's, at any of the great exhibitions, will be a better lesson than any written one. As to the latter, be careful that the entire ball of earth gets well wetted, and do not water again until it becomes dryish; nothing is worse than a "*sup.*" *Pinks*.—Keep the surface of the beds well stirred and clean, and towards the end of the month *top-dress*, if you can get a dry time, with well decomposed dung. Take care that the plants are *straight* in the ground. *Ranunculus*.—My day for planting these is February 12th. The beds ought this year to be in good condition, they have been well *frosted*. Turn them over, pull out all worms, and about the time named (not on *that* day, *this* year, for it falls on a Sunday), get the beds ready. Rake smooth, open drills about five inches apart and two deep, lay silver sand along them, and plant the roots about five inches apart. If your beds want filling up, Tyso, of Wallingford, or Lightbody, of Falkirk, can supply first-rate sorts.





Chrysanthemums.

1. *Mrs Wm Holborn.* — 2. *Arthur Wortley.*

Plate 162.

CHRYSANTHEMUMS.

LARGE-FLOWERING VARIETIES.

(PLATE 162.)

In my short paper on Pompones in the January number of FLORIST, I said, that as far as my own judgment went, that this year would see a greater improvement in the large-flowering varieties than in the Pompones; probably the plate containing portraits of Mrs. W. Holborn and Arthur Wortley will bear me out in this assertion. How is it, perhaps some one will say, that with so many new kinds, year after year, we still find in the lists of winning sorts at the great exhibitions, such old flowers as Pilot, Vesta, Queen, &c.? I am afraid the prevailing tendency to large dresses and crinoline is at the bottom of it. The great object in cut blooms seems to be size, and of course completeness of form; and some of these older, and possibly not so highly bred varieties, will bear a great deal of high feeding, and immense size is attained—while they will also stand the *gouging* and dressing, and plucking better; and as *colour* seems to be quite a secondary matter, they carry the day; this will all right itself by-and-bye. One remembers when the outcry was raised about Dahlias being so large, that they must necessarily be coarse, perhaps they were, but the hybridisers said that; and now we have Dahlias, not only *large*, but quite as refined as the smaller varieties; and so if we leave the Chrysanthemum raisers to themselves, we shall by-and-bye find the coarseness gone, and the size remaining, combined with colour. And indeed when we consider what they have done, we may well trust them for future progress. I have been favoured during the writing of this paper with two plates, published in the Horticultural Society's Transactions for 1824, to illustrate a paper by Mr. Sabine, the secretary, which are supposed to be portraits of the best then existing. I wish that I could transfer them to the FLORIST, that they might appear side by side with this month's plate, for it is utterly impossible to convey a correct idea of the immense advance. Imagine a large Michaelmas daisy with the petals prolonged and quilled, throwing themselves about in all directions, feeble in colour, and lanky in habit. No change could be greater, and we may well then allow hybridisers to have their own way. The great difficulty is, as far as colour is concerned, to get a certain amount of liveliness into the tints. There is a dullness of hue about most of them, and when we come even to the "sang de bœuf," one is not disposed to accord to bullock's blood anything of a very lively tone.

He would be a fortunate man who could originate one with the colour of *Géant des Batailles* in *Roses*, or *Scarlet Defiance* in *Verbenas*. There is something of novelty in colour in some of the new ones mentioned below, and that will be a recommendation to many who do not perhaps particularly admire the large-flowering varieties. In this instance, Mr. Salter leads the van, and the list given below comprises those which, on my visit there last November, I considered particularly deserving of notice; and as it would be idle in me to attempt to give directions for growing them, when the pages of the *FLORIST* have been enriched by cultural directions from some of the first growers of the day, I shall merely add the descriptions of those which I had marked:—

Alarm, dark crimson, the flowers well incurved, and the plant apparently inclined to be dwarf and bushy

Arthur Wortley, rosy amber, yellow tips, flower very full, and most beautifully incurved, unquestionably a striking variety: something in the style of *Dupont de l'Eure*, but better in habit, colour and fulness (see plate)

Emperor, very large, perhaps the largest of all sorts grown, anemone flowered, blush with sulphur centre; it has the peculiarity of changing when fully out into a dark cherry, rather coarse perhaps, but good

General Harding, a curious orange red, flower well incurved, something like *Two-Coloured Incurved*, but better habit of plant, dwarf and very free flowering

Jewess, orange and red; a first-rate plant for specimens

John Bunyan, bright rose, very full; habit of the plant good, and will therefore make a good specimen plant

Mrs. W. Holborn. We have long known the lady from whom this is called as *Annie Salter*, and under her new cognomen she is likely to have a more extensive acquaintance still. The flower is a fine white, and well incurved

Queen of the Isles, another fine large white, something like *Vesta*, but larger and broader in the petal; a fine free-blooming and dwarf variety

Wonderful, a good crimson, and when caught in its youthful state well incurved, but afterwards reflexed

Yellow Perfection, a rich deep yellow, of most perfect form, something like *Plutus*, but superior to it in every way; one of the (if not the very) finest yellows out

There are some others which are very pretty, and equal perhaps in the estimation of many to those I have already enumerated, but these seemed to me the cream of the collection.

Deal, Feb. 20.

D.

THE WINTER AND THE WEATHER IN YORKSHIRE.

AN idea has of late years prevailed with some people that our seasons are much altered from what they were in former times—that our winters were so mild and our springs were so severe, that it was almost hopeless to attempt to grow fruit without glass or some other protection. The winter now drawing to a close will, to some extent, have corrected

that notion. For, surely, there are but few who can remember many winters in which there have been severer frosts or more snow, and a longer continuance of them, than there has been this season. The effect has been injurious and fatal to many things in the Pinetum, pleasure grounds, and garden; many a fine specimen previously considered hardy has been much injured, if not quite killed. It is not often that things are in a condition so little able to withstand frost as they were last autumn. The mild, warm, growing weather which prevailed during the whole of last September, and up to the 20th of October, induced late growth, particularly among flowers and vegetables; consequently, a week's keen frost made sad havoc among them; "bedding plants" were completely finished, but as there had been ample time for providing a good supply of young "stuff" for another season, and as we could not expect them naturally to last much longer, their destruction then was a matter of no serious consequence. Scarcely, however, had we got matters made neat and tidy, than we were visited early in December with a degree of cold so severe and destructive as to cause the loss of many valuable plants; and as we have had severe frost and snow ever since, with only a few days' intermission, it is to be feared there will be many a blank to be made good next spring in the Pinetum and pleasure grounds. Here, with the exception of a few days, snow has been on the ground for these last ten weeks.

As the Conifers at this place have stood all without sustaining much injury, it may interest some of your readers to know which they are. I may remark that the ground is very undulating, and the subsoil of a dry and gravelly nature. None of the very delicate or more tender Conifers were planted. As *Pinus insignis*, which is one of the most beautiful of all the Pinuses, has been completely killed in many places, I may state my own experience, and my own opinion as to its hardihood. By many it is considered to be too tender and delicate for this climate; indeed, I have been repeatedly told that it will not thrive in Yorkshire. My own experience in the matter leads me to believe it will succeed admirably, provided the conditions necessary for success be supplied, namely, a situation where it will have full exposure to air without being too much exposed to the sweep of the north-west winds, and a dry subsoil; these conditions are absolutely necessary to ensure its success. To plant them in low, flat, sheltered, humid situations, and in strong heavy retentive, or badly drained land, is to end in certain failure. There are several very fine thriving young trees of *Pinus insignis* here. The two largest have been planted nine years; they were then very small, poor things; the largest is now 15 feet high and 10 feet through, and is as perfect and promising a specimen as any person could wish to see. These trees are as exposed as any trees possibly can be to the north-west and north-east winds, and not a single bud of either has been injured since they were planted, nor has the foliage ever been in the slightest degree browned until this season, when one side of the largest tree has suffered a little, but as I have just remarked, not a bud is injured. There are several smaller trees, all (except one) in very exposed situations, which have stood the weather without injury. There is one tree in a situation that is much sheltered by Laurels, and

where the soil is of a heavier nature; this tree grew very late in the autumn, and the wood not being properly ripened, it has suffered very much; indeed, I fear the leading and some of the side shoots are killed. I may also mention that we lost a very fine young tree three years ago, that was in a sheltered situation and where the soil was strong. Now had we planted all these trees in sheltered situations, we most assuredly would have lost them all long since, and we would most probably be of the same opinion as those who think this tree will not succeed in Yorkshire. But having planted most of them in dry airy situations, where they have had every chance of getting the wood well matured before autumn, instead of starting into fresh growth, which they nearly always do in sheltered situations and strong retentive land, the plants have succeeded beyond expectation, and I have little doubt that in a few years they will be magnificent trees; the only danger to be apprehended is from the north-west winds, to which they are very much exposed.

The following Conifers have stood the severe weather without injury: *Pinus Benthamiana*, *P. excelsa*, *P. Gerardiana*, *P. Lambertiana*, *P. macrocarpa*, *P. cembra*, *P. pyrenaica*, *P. Sabiniana*, *Cedrus atlantica*, *C. Deodara*, *Araucaria imbricata*, *Cryptomeria japonica*, *Cupressus Goveniana*, *C. Lambertiana*, *C. Lawsoniana*, *C. macrocarpa*, *Picea nobilis*, *P. cephalonica*, *P. Nordmanniana*, *P. Pinsapo*, *P. Webbiana*, *Taxodium sempervirens*, *Thuiopsis borealis*, *Thuja gigantea*, and *Wellingtonia gigantea*, of which there are numbers of young plants, in almost every possible situation, not one of which is the least browned.

Vegetables have suffered very much from the severe weather. Broccolies are nearly all killed; one sort, the Dwarf Russian, a small hardy kind, has nearly escaped altogether. Some that were laid down in the autumn have also partly escaped; but two large plots of other sorts that were not so treated, are nearly all killed. Young Cabbages have stood well here, also Celery and Globe Artichokes. Parsley has been injured, and in some places killed; part of mine has stood well, and some has been completely killed: the latter was that sown in February and March on rich land, and having been well thinned out it grew very luxuriantly until killed by the frost; the former was sown in May. Parsley for winter should always be sown in May, and then not on very rich land; neither should it be too much thinned, unless there are ample means for protecting. When sown in May on land not over rich, and where it can have the protection of a wall or a row of Currant or Gooseberry bushes, it will stand the weather, as some here has, without any further protection.

As we have had so long a continuance of severe weather, we may naturally anticipate a mild and favourable spring, although it may be the contrary. If it be favourable, we may confidently look forward for good crops of fruit this season, more especially as the crops last year were in general deficient.

Stourton, Yorkshire.

M. SAUL.

SOILS, FRUITS, AND MANURES.

(Continued from page 57.)

THE best fruit-tree soils in Britain, for general cultivation, belong to the tertiary bed of the London clay formation (geologically speaking), a large area of clays, sands, and gravels, covered for the most part with a surface soil (loam) possessing all the ingredients for growing fruit-trees in perfection. The London clay overlies the chalk, and extends through the counties round London, and the south and east of England, varying from a few inches to several hundred feet in depth, which is the case at and for some distance round London.

The loams of these districts differ considerably in composition, but are generally characterised by a yellowish colour. The best descriptions are soft and unctuous to the touch, owing to the presence of calcareous matter, and generally contain a number of round pebbles and very finely divided flints, showing that during their deposition the materials of which they are composed were for a long time exposed to the action of streams and currents of water. These loams drain themselves freely, and abound in fibrous matter, owing to the freedom with which the roots of the natural vegetation growing on them extend themselves, forming what all gardeners are so desirous of obtaining, viz., a *turfy loam*. We need scarcely add, that for all purposes of fruit-growing such loams hold the very highest place; but as the subsoil has something to do with the health and productiveness of fruits, we must notice this before describing the soils of other formations. The subsoils of the London clay districts may be classed under four heads—clay, sand, gravel, and chalk. The gravel or drift beds extend over considerable areas, and where there is a depth of surface soil over them of not less than twenty inches they form, of course, where the gravel is open, a well-drained soil, which may be termed a warm one, and on which all our tenderest fruits—as the Peach, Apricot, Vine, and Fig—thrive admirably. Where the subsoil consists of sand alone the same remark applies, if the land is free from landsprings; if not, the most effectual draining must be laid down before any kinds of fruit are committed to soils liable to springs; and from the known coldness of such soils we should hesitate, under any circumstances, before planting fruit-trees on them, and on no account until we had satisfied ourselves that the drainage was complete.

Clay subsoils should, in all cases, be made perfectly dry by draining, and should also be loosened for some depth, to permit the surface water to pass freely from the roots of the trees growing on them; breaking up the subsoil will also prevent the tendency to burn in hot seasons, to which shallow clay soils are very liable. When the drainage is perfect, and there is a depth of twenty inches or more for the roots to penetrate, all the hardy kinds of fruit-trees—as the Apple, Pear, Plum, Cherry—will thrive well, as also the Gooseberry, Currant, and Strawberry, although this latter requires a deeper and freer soil to flourish in perfection. The chalk subsoils of the London clay are met with most

frequently towards the outside of the basin, as in Berks, Hants, Sussex, Herts, &c.; and where the lower beds of the formation (plastic clay) predominate, the loams lying immediately on the chalk contain more flints and a kind of ochreous matter combined with peroxide of iron, but they are equally good for fruit-tree culture. The subsoil chalk absorbing all the rain which falls, and giving it out slowly, maintains at all times a uniform degree of moisture to the roots of plants, and never burns in dry seasons, or becomes too wet in the winter. Chalk subsoils should have their upper crusts well loosened and broken, so as to permit more readily the escape of water from the surface. The freedom of the loams resting on the chalk from any pernicious ingredients unfavourable to fruits, makes them very desirable soils for fruit-growing when the depth is sufficient; and we have observed less disposition to canker and gum in fruit-trees growing on such soils than most others, not only in this climate, but in that of France also.

In nearly every part of the London clay districts very strong loams are to be met with, which are locally called brick earths (owing to their being applicable to the manufacture of bricks); such soils are mostly too heavy and retentive for fruit-growing unless well drained, but when soils contain a proportion of lime, they are capable of being converted into first-class composts through the agency of burning (a process we may hereafter devote a chapter to), by which means the lime is brought into a state in which it will quickly pulverise, and a portion of the clay also being calcined by the operation, is rendered porous, and forms a soil at once rich and open, suiting equally the growth of fruit-trees or vegetables. For such heavy loams, therefore, as will not pay for working alone, and contain lime, the cheapest and most effectual way of reclaiming them is by burning, and well incorporating the calcined clay and ashes through the mass to the depth of two feet, at the same time draining the subsoil. The burning should always be done with wood, if procurable.

The next soil best adapted for fruit-trees, which has come under our notice, is that of the new red sandstone. Here we frequently find loams of great richness, and varying from a close approach to a marly clay to one of a light sandy nature. These soils are almost invariably of a deep red colour and a somewhat marly texture, and are well adapted for the Apple, Pear, Plum, and Strawberry, and, with a proper admixture, for the Vine, Peach, and Fig; while, for the growth of the Melon, the red marly loams of this formation surpass any other soil we ever saw tried for producing this fruit in the highest perfection. Strawberries and bush fruits grow equally free on the deep loamy soils which are found so frequently in this formation, which extends itself from Exeter to Bristol, and thence over most of the midland counties, by Chester and Lancaster, to York and Durham.

(To be continued.)

HINTS ON THE CULTURE OF THE PELARGONIUM.

WHAT flower is more beautiful or more easily cultivated than the Pelargonium, and why is it that we so seldom see the plants grown by amateurs what they should be? We go to five places out of ten, and instead of being gratified by the sight of healthy good-habited plants, are disappointed by finding only weak spindling specimens. We regret that some of our friends who contribute to floricultural works appear to make some reservations in bringing their methods of cultivation before the public. Surely it cannot be attributed to a fear, that, by following their instructions, others might eclipse them. It should always be the desire of every real lover of horticulture to strive to attain the highest perfection by the simplest means, and having attained this, to bring these means unreservedly before the world. My experience at Worton Cottage for many years has given me large opportunities for judging what is the most successful mode of cultivating the Pelargonium; and the belief which I entertain, that with care, amateurs can equal nurserymen therein, has induced me to trouble you with a few hints, which I hope will not be unacceptable to your readers of the former class.

The cutting should be taken from a single stem of old wood, and in potting from time to time lower the plant a little, by which it acquires a strong constitution, will never throw up rootlets or suckers, nor make weak wood. Should the cutting, on striking, break more than one eye, take off the weaker one or ones, leaving the strongest break. I put each cutting in a 3-inch pot, and strike in a gentle heat, after which they must be hardened in a cold house before shifting, which should be into 4-inch pots. When the plant has grown from three to four inches, it should be stopped, which operation will cause it to make about four breaks, further than which it should not be allowed to go the first season, if we study quality of flower. The plant should now be repotted into a 48-sized pot, and in this it should flower. If we give them more root room they grow continually, a circumstance which very much affects the character of the flower. But should the amateur desire a specimen plant for next season, the above directions must be slightly varied. It should be shifted from a 48-size into a large 32-sized pot, where it will break freely and bloom late. But in this case, the flower will be very indifferent. Nevertheless, we insure a sufficient number of eyes to form a fine large plant for the coming year. Be very particular, especially in the winter months, to occasionally stir the surface of the mould, which will prevent the green-fly, so injurious to the plant, from appearing. Fire very sparingly, giving as much air as possible at every favourable opportunity, and do everything that will tend to keep the plants close and short-jointed, which will greatly favour the ripening of the wood. Don't mind losing a little bottom foliage, as thereby you will surely know that your plants are getting thoroughly ripe; and, by this course, you will greatly improve the quality of the flower, which we maintain is *the* thing in all plant growing, but especially in the case of the Pelargonium.

As to compost, I use rich fibrous loam, stable-dung, and a little cow-

dung, laid up a year beforehand to thoroughly decompose; and when we use this, we add to every bushel about half-a-peck of silver sand. Select from among your young bottoms, which have been grown according to the above directions, those most suited for your purpose, if you intend to exhibit. Cut them down early when the wood is thoroughly matured, and keep them rather short of water for a time. When they have broken sufficiently to show their first two leaves, they should be removed from the pot—their roots cleaned from all adhering mould, and trimmed in closely. Repot into 32-sized pots; stop them when the shoots are sufficiently grown, which will be about November; and if the plants be required to bloom in May, shift them at this time into 16-sized pots, and do not stop them any more. Keep them thoroughly tied out, watering now and then with weak liquid manure, and occasionally drawing the syringe over them, until they show colour. At this period, as indeed at every other, attend strictly to fumigation, by doing which you will effectually prevent that pest the green-fly from attacking them. Should, however, you desire the plants to flower later, they must undergo a slightly modified treatment. If intended for June blooming, they must be repotted into 16-sized pots in December, and be stopped in January; if for July, they should be shifted in January, and stopped in the latter end of February. Syringe more frequently, give more liquid manure, and keep them as cold as possible from about April, otherwise they will certainly flower earlier than they are wanted—especially the July plants, after which their season is over, virtually speaking, although they may be kept in bloom throughout August, making a nice show for decorative purposes. In this case, however, they will be quite out of character. Great care should be taken throughout the flowering months to keep off all the sun, to give plenty of air, and to exclude anything that is likely to cause damp. By neglecting these precautions, the flowers will go off much sooner. All dead leaves and flowers should also be removed immediately they appear.

If your plant bottoms be two or three years old, they may be treated differently. Shift them into their blooming pots a little earlier; those intended for May flowering do not stop at all; those for June and July but once, and that in February.

Do but attend to all these little points, as to compost, shifting, stopping, tying out, syringing, fumigating, &c., and I am sure you will be by no means disappointed in your success. Bear in mind also that thorough cleanliness in every stage is most important, for not only does it enhance the beauty of appearance, but has a great influence on quality.

Perhaps I may venture to give a list of those varieties which I have by experience proved to be the very best of the very many before the public. With the exception of those marked with an asterisk, I have bloomed them all, and even these we have seen, and can fully testify as to their good qualities for all purposes. I have shown no preference towards the productions of any particular raiser, and, as regards Mr. Beck's flowers, they have been subjected to the most rigorous trial and inspection:—Apollo (Beck), *Ajax (Foster), Aurelia (Beck), *Autocrat (Foster), *Angelina (Hoyle), Ariel (Fellowes), Bridesmaid (Beck) Bacchus (Foster), *Czar (Hoyle), *Douglas (Hoyle), Emperor (Beck)

Etna (Turner), Empress Eugenie (Story), *Euphemia (Hoyle), Flora (Foster), Festus (Hoyle), Fairest of the Fair (Beck), Golden Hue (Foster), Glow-worm (Foster), Hesperus (Beck), *Lord Clyde (Foster), Mars (Beck), Hyperion (Dobson), Prince of Wales (Hoyle), Rosalie (Dobson), Roseleaf (Dobson), Rose Celestial (Turner), Sir C. Campbell (Turner), Sappho (Beck), Sunset (Beck), Symmetry (Foster), The Bride (Beck), The Belle (Turner), Unique (Foster), and Vestal (Beck).

The following are the best selection of the spotted varieties, most of which are very large and strong, and all of them raised by Mr. Turner, of Slough:—King of Purples, Mammoth, Magpie, Bracelet, Mr. Marnock, Beadsman, Excelsior, Jung Bahadoor, Peacock, Guido, Mazeppa, and Sanspareil. There are a few Pelargoniums that will bloom early in April with the assistance of a little firing, viz. :—Bride (very good), Larkfield Rival, Fairest of the Fair, Desdemona, Rose Celestial, and Fair Ellen. And now cannot the Fancy Pelargonium raisers furnish us with information like the above?

JOHN WIGGINS,

Gardener to Mr. E. Beck, Worton Cottage, Isleworth, W.

ARE WE RIGHT IN MAKING OUR FRUIT-TREE BORDERS POROUS?

THIS question was put at page 97 of your volume for 1858, and I was compelled to forego noticing it at the time ; other circumstances have, however, occurred since then to enable me to more fully endorse all that the writer there advanced. This is a subject that has for a long time been under my notice, and I am only sorry that some of my brother gardeners have not taken up the matter, and recorded their opinions and experience upon it. But to the point. I will first of all record what circumstance first led me to suppose "all was not gospel that was preached" upon this vital point of fruit-tree border management. I was brought up in Suffolk, under one of the "old school," whose yearly crops I never yet saw surpassed, either in-doors or out; and as to his wall of Peaches and Nectarines, why they were worth a day's journey to see, and what is more, I never knew them to have the slightest protection or covering of any kind ; a space of about eight feet was allowed from the walls as a border for the trees to grow in, and over this space was a constant traffic to and fro for pedestrians, and even *carts* were taken over it, till the surface had become as hard as a common road. I well remember the old gentleman's remark to me, when one day, after reading some observations upon the policy of having fruit-tree borders open and porous, from one of the leading magazines of that day, I took upon me to hint that, from what I could gather from the books I had perused, he was not quite right in the management of his border : "Ah, my boy," said he, "don't you pay heed to all the new-fangled schemes that you hear of, but use your eyes and brains, and draw your opinions from what you see passing around you. Make nature your principal study, and gather

facts from her. She will not deceive you far. Look through the woods and fields, and tell me where you find the finest trees: I have always found them myself in old pastures, where the cattle have for generations been accustomed to tread upon and around their roots, till the soil had become like a rock. But as to the borders, mind and well drain them at the time of making; use good maiden soil at planting—no manure, recollect. Choose good, clean, young trees, and don't plant too deeply; when planted make your trees as firm as you can, and you will always find the trees upon firm solid borders—when well drained—make much better wood; there is no coarse superfluous growth, but excellent short-jointed fruitful shoots, which will ripen up as hard as iron, and you'll find in the end you will always get better crops than those whose soil is loose and their trees more vigorous. Your trees will also be much longer-lived than theirs will." There was also a vinery at this place planted upon the same principle, with a *broad gravel walk* covering the border, and the produce was always most satisfactory—far more so than since it has fallen into other hands, and the "new-fangled" system has been adopted.

Another instance I will adduce, and bring the name of one of your valued and excellent correspondents into question—whose name, by the bye, I have not seen in your pages lately—that of Mr. Saul, of Stourton. At his place I saw several years successively the most splendid crops of Apricots and wall-fruit generally that ever man could desire to see, but his borders were far from being so light and porous as the anti-consolidation writers of the present day could wish us to adopt as a primary cause of success. He is, I believe, very particular as regards the drainage, &c., and never permits any unnecessary treading upon his borders, but allows them to become naturally firm, only running the hoe over them now and then, to keep down the weeds, &c.

Again, two years ago I took charge of an extensive place, and on going through the houses I was grieved to find that the Vines and Peaches were in the most wretched state imaginable. Upon asking the foreman a question or two, he said, "Oh, sir, they have been sadly over-cropped and the soil is bad, but we have been mending it these last three or four years *by digging a lot of leaf-mould and long dung into it* every year; the borders are getting *nice and light* now, and we are in hopes that in a year or two they will recover again!" Upon going outside, I certainly found the borders were becoming "nice and light," for upon walking over them the feet settled down as if one was walking over a heap of rotten leaves. After examining the drainage and finding that efficient, I got some good loam and spread over the borders, and allowed it to remain till it became quite dry. I then set three men upon it to *tread it firmly down*, after which I covered the Vine borders about two inches thick with good decomposed stable manure, and let it remain to be washed in by the rains, &c. Nothing more was done during the whole season but the hoe run over them occasionally. The last spring they had another top-dressing of manure as above, but the surface has not since been disturbed. The consequence of this treatment was that during the first season the improvement of the Vines and Peaches was far beyond expectation, and during

the last year some of the very finest fruit that went into London were produced here ; indeed, the words of the consignee, who is not by any means one of the easiest to satisfy, were, "The Grapes and Peaches that were sent up were magnificent."

Another instance I will adduce. I well remember seeing in Devon, in the year 1852, a wall of Peaches and Nectarines which were planted in a border of light spongy material, and every care was bestowed upon it to keep it open and porous ; the consequence was that the trees grew most luxuriantly and grossly ; the wood did not ripen, and was often half killed down in winter, even in Devon, and consequently little or no fruit was produced. My opinion was asked. My advice was : lift your trees, get some stiff loam and mix into your soil, and after your trees are again planted let it consolidate, do not fear treading upon it, &c. I have since heard that from this very wall they are gathering some fine crops yearly. I could enumerate several other instances that have come under my notice, but I think enough has been stated by me. I should, however, hope that others will take up this subject, and give us their ideas and experience upon it. Do not let it be supposed that I am advocating making cart roads over the borders—I am far from carrying the matter to that extreme—but I do think too many of our borders are made much too light.

A.

EXPERIMENTAL GARDENING.

Border-making and Root-pruning.—In our last paper we alluded to root management as an important point bearing on fruit-tree culture. In point of practice, border making and root management are inseparably connected with success in training and pruning, so far, that it would be useless to lay down rules for the one without considering the other ; for, however certain it may be that in some localities fine fruits are grown without any special provision having been made in the way of borders, yet, in the far greater number of cases, artificial preparations for borders are necessary for securing a healthy root action ; without which no skill of the gardener, bestowed on the heads of his trees, will avail in keeping them in health and productiveness for any length of time.

In treating this subject, we have to bear in mind that the native fruits we cultivate are few, compared with introductions from warmer climates ; for although the Apple and Pear are held to be natives of Britain by botanists, yet so far as the best varieties of the latter (and many even of the former) are concerned, their superiority can only be maintained by careful cultivation ; while the Peach, Nectarine, Cherry, Fig, and Apricot require the protection of walls (see *ante* p. 58), to induce them to produce their fruit in perfection ; and it will be evident at once that the borders in which the roots are to grow must bear some relation, as regards warmth and dryness, to the improved climate made for the trees by the means pointed out.

It should be laid down as a rule in practical fruit culture that the

borders in which fruit trees grow should be appropriated exclusively to them. Experiments have long since proved the soundness of this theory. The occasional cropping of borders may appear a trifling matter, as to the effect it will produce on fruit trees growing therein; and the economy of the practice looks well *prima facie*; but considering how important warmth and light are to the healthy development of fibrous roots, and these again to the fruit-producing habit of trees, and we see at once that not only should fruit tree borders—for all the tender kinds cultivated—be shallow, and drained beyond the possibility of their ever becoming wet, but the border should be composed of soil favourable to the formation of fibrous roots, and also adapted, as regards consistency, &c., to the kind of tree to be grown on it.

Transplanting, Lifting, and Root-pruning, are all operations in fruit tree culture having for their object the checking a too luxuriant growth. The frequent removal of the roots acts as a kind of pruning, and encourages the formation of those small fibrous roots, which (as we have before stated) are so intimately connected with a fruitful habit. Then, again, our climate is frequently too wet in September and October for the roots of the Peach and Apricot to bear without forcing them into an autumnal growth, and is also deficient in the solar light necessary to mature such and convert it into bearing wood. The fact presents us with another reason for keeping the roots as free from stimulating influences as possible, and nothing will so effectually cause this as having the mass of roots confined to a small space, and where the ill effects of too much rain will not be materially felt, owing to their shallowness and the quick drainage powers of the border. The principle to aim at with the roots is keeping them in a medium state, or at a point beyond which any extra growth induced more than can in ordinary seasons be matured by our climate would entail an evil uncompensated for by any other advantage to be gained.

With shallow, and we may add narrow borders, fruit trees may be kept in a fruitful state for many years, if lifted annually, and fresh compost put about their roots. We are not prepared to say how long trees thus managed will last, but we have seen Pears lifted each autumn for the last twelve years which are now models of fruitfulness and vigour. We have also the evidence of Mr. Rivers, of Sawbridgeworth, one of our best authorities on fruit culture, that many Pear trees in his nursery have been so treated biennially for several years with the best results; and we have also ourselves seen, at Sawbridgeworth, Peaches (fine vigorous trees) grown we know not how long in pots by Mr. Rivers, by merely shaking the worn-out soil from their roots every two or three years, and repotting them in new compost. The practice of annually or biennially lifting fruit trees is not altogether new. We remember (now upwards of twenty years ago), Mr. Neimann, who at that time was gardener at the Hylands, in Essex, used to take up the Peach trees in his forcing houses each autumn, and replant them in fresh soil. We never saw trees in better health or finer fruit than the good Dutch gardener in question produced by the above means. We shall not be far wrong in stating that fully one-half of the energies of wall trees is wasted in the annual production of useless wood. It

is this waste of power which it should be our object to control, and divert to the production of fruit. When we next resume the question of pruning in connection with these papers, we hope to show that Peaches are capable of being managed somewhat differently from what we usually see practised ; but we must leave this and other questions, follow up our present subject.

The rationale of root pruning is to induce the formation of short fibrous roots, by shortening in the main roots to within one foot of the stem, just as you induce the growth of moderate sized bearing wood in the head of the tree by heading back the main branches. There is a kind of reciprocal action between the roots and branches of a tree, and hence we find, when root-pruning has been established two or three years, and the tendency of the tree to make very strong roots has ceased (which is generally the case in two or three years' time) that the top also conforms to the same law, and the production of moderate sized wood follows ; and if the proper examination and pruning of the roots are annually performed in November, the due balance between the roots and head of the tree may be maintained for many years. By this system we are of opinion that the borders for walls, Peaches, &c., need not be wider than 5 or 6 feet at most, and that the roots of the largest trees need not occupy a space greater than 6 feet square ; for one great advantage connected with the principle of annual lifting and pruning will be the removing the soil from about the roots and replacing it by fresh compost, thus each year furnishing the spongelets with a fresh supply of food, without their having to travel far for the purpose of obtaining it. The quantity of fresh compost required for this will not be large, and will be more than compensated for by the large space of border left unoccupied, and which will be available for other crops.

J. D. S.

THE SLAUGHTER OF THE INNOCENTS.

BEDDING GERANIUMS.

“WHY have you been so hard on the Verbenas?” “Why is Mrs. That, and Lord Somebody, and Miss What-do-you-call-her for ever to be shut out?” “Talk of refuges for houseless wanderers!—why here are some of the very best families in the land—statesmen, heroes, ladies, authors, and I know not what—deprived of even the luxury of a bed!” Some such exclamations of disgust at my murderous treatment I have heard from growers. All I can say is, try them, if you like; grow your pets, and, if you want to make a bed, I should like to see your disappointment. I dare say there are some good people who turn up their noses at Robinson’s Scarlet Defiance. “What that old thing!—I have given it up long ago; there is such a beautiful new scarlet, I am told—an excellent bedder!” and so on. Such would hardly believe that the other day, in talking to my neighbour’s experienced gardener, who has had all the Verbenas that have come out, one after the other, under his hands, he expressed his regret that he was very short of it this year,

and did not know what to substitute for it. I mentioned several, but they were all pooh-poohed! though, at last, a possibility of one of last year's taking its place was admitted. I mention this for the benefit of those who think everything new must be good, and forthwith throw away old-established friends before they have decided whether the new faces will wear as well as the old ones. This is a sort of prelude to another day's shooting here. However, the game is not so plentiful, it is more like a hippopotamus hunt; for some of them make such a noise, and are so terribly encased in armour, that it is very hard to drive them out. However, we will try.

Here are, however, two dear innocents, whom it seems to be downright murder to say a word against; it is almost like James Tyrrel undertaking to smother those infant princes in the Tower. I wish I could transcribe all that was said of them:—"They were the result of long and successful hybridising;" poetry, prose, and philosophy, and everything possible, were brought to bear; and I should think the author who wrote it must have imbibed a considerable quantity of oxygen gas through the new inflator before he felt himself *tall* enough for it. I mean Imperial Crimson and Model Nosegay. They may be valuable on the principle, "Live, horse, and you 'll get oats," as we are told they are the parents of "the coming Geranium;" but as to themselves, I have heard but one opinion. In some places a second trial is to be given; in others, they have been consigned to the dungheap. I might have had a basketful of cuttings, but I declined the honour, and I must honestly say I do not think them worth garden room, and so—

" We smothered
The most replenished sweet work of Nature,
That from the prime creation e'er she framed."

And now with regard to *variegated* Geraniums.

I ventured last year to say that I thought Jane would be an improvement, as the flowers were deeper and the foliage flatter than even Bijou. This character I think it sustains; the scarlet is quite as deep as Julia, and the flowers are produced in greater profusion; and I am inclined to think that a second year's trial will confirm the opinion. Countess de Morella I do *not* think an improvement, the foliage wrinkles very much and the habit is faulty; besides it will not do, now-a-days, that things are as good as those already out—they must be *better*. *Picturatum* is a very pretty thing *in-doors*; but out, like all these crimson and pink-zoned varieties, it fails. I have not seen any yet, with the exception of Burning Bush, that could be looked upon as good bedders; they are so easily damaged by wet that they soon begin to look dirty and tattered. I do not know enough of Rainbow to give any decided opinion, and however much may be *said* of flowers, one is learning the lesson every day, that we must see with *our own* eyes.

Miss Emily Domville is likely to be an acquisition to the lighter flowered variegated, its habit of growth being superior to those already out. The new golden varieties are not worth much, at least so far as I have seen them; and as to ease of cultivation, anyone may strike as many Golden Chains as they like in the spring. It will thus be seen that I do not individually think that we have had any very great

improvement in this class ! and I think it a great mistake that so much should be said about new varieties in every possible way, before it can even be known from experience what they are. One knows pretty well what the history of a seedling is ; if it makes a presentable appearance, it is immediately seized upon ; it is kept back perhaps for a year, perhaps not ; in the meanwhile it is propagated to its utmost limit ; as soon as a shoot comes to any size off it goes, it is not allowed to bloom hardly. And then how can people write about its effect in parterres, vases, beds, ribbons, &c., when it has never once had the opportunity of appearing in any of them. Surely it would be much better to express a *hope* that it *might* answer these purposes, than to positively affirm that it *would*. And talking of this, let me say, that while I saw many beautiful beds last year, I most decidedly give the palm to two in Lord Middleton's garden at Woollaton, near Nottingham. They were long, narrow ones, in the geometric garden, somewhat shaped like an S, composed of variegated Geraniums and *Verbena venosa* mixed, edged with blue *Lobelia* ; one was a pink-flowered variety, the other *Alma* ; it is hardly possible to conceive anything more lovely than they were, and difficult to say which of the two looked best. In other places I saw beds of *Verbena venosa* alone, and it was a failure, as are variegated Geraniums generally by themselves ! but this mixture is very beautiful, and I feel quite confident that any lady would at once pick them out as extra beautiful,

Christina, let out by Mr. Kinghorn, is really a very pretty addition to the pink-flowering varieties, dwarf in habit, free in blooming, and lively in colour. And in salmon and red ones there are two good importations from France, namely, Paul Lobb and Mons. Martin ; and these, together with Emperor, which appears like an improved Master-piece, constitute the only valuable additions in my humble opinion in this class of bedding plants, during the past season ; nor do I know of anything very remarkable coming out. I saw an improved Golden Chain at Slough, and a curious foliaged one at the Botanic show, called Sunset ; but whether it will be worth anything time will tell.

Deal, Feb. 23.

D.

GRAFTED PEARS.

MR. C. T. Wren, late gardener to His Grace the Duke of Sutherland, at Trentham, sent, in November last year to the Fruit Committee of the Horticultural Society, some Easter Beurré Pears, still attached to the branch, to illustrate the results of grafting naked branches with short fruitful wood, as explained in the following letter :—

“ A method of treating the Pear has been extensively practised at Trentham, by Mr. Fleming, for a considerable time, the satisfactory results of which are such as to induce me to send specimens, illustrative of its excellence. The trees are chiefly Jargonelles, trained horizontally, and which still continue to bear fruit of the original varieties, at the points of the branches. It is frequently seen that two-thirds or more of the main branches near the stem produce no fruit, but a super-

abundance of useless wood : to obviate this, the branches are divested of all wood-producing spurs, and thickly side grafted with short fruitful wood, well furnished with incipient fruit-buds ; these scions, if properly selected, instead of growing to wood, generally produce fruit, and thus the entire branch may be laden. The plan thus ensures fruitfulness, other conditions being favourable, and admits of superior varieties being introduced."

The branch was heavily laden with fruit of large size, several being produced from each graft, inserted at short intervals along the branch. These proofs of the success of this practice were highly satisfactory ; and where wall-trees do not bear, or bear only at the extremities of the branches, the plan may be advantageously adopted.

NOTES ON THE MONTH.

WE are now in the middle of the third winter for the season 1859-60, which will be long remembered as the most destructive to garden produce that has visited us for many years. The frost of October, '59, caused great damage to vegetation, following close, as it did, on the warmest autumn probably recorded. After the frosts of October came a lull—a season of wet and mild weather—until the middle of December, when the frost, for about a fortnight, was most intense, the thermometer having fallen to zero in many places, and below it in others. This was followed by another lull ; and now, in the middle of February, we are having our third touch of frost—sharp for the season, and accompanied by a downright north-easter. The effect of this present weather, on the whole, will be beneficial ; it will retard the opening bloom of the Apricot and Peach—indeed, of fruit-trees generally—and so increase the chances of our having a good season for them when they do bloom. It also has made the land dry, and will so far help to pulverise rough dug or ploughed land, and enable manure more easily to be wheeled and carted, which the rains of January had sadly hindered.

The frosts have made a tolerably clean sweep of garden and field stuff. Broccoli of all kinds, and even Borecole and Coleworts, in places, are gone, while Spinach, Celery, and salad plants are *non est*, while field produce is in the same plight. Those amongst us who are wise have taken care of their autumn Cauliflowers, Lettuce, Cabbage, &c., and have already frames full of spring-sown plants of the above ready for pricking out, to transfer to the naked quarters of the kitchen garden, when the season arrives.

We hear of great losses among nursery stock, with newly-budded Roses particularly, as also with dormant Apricot and Peach buds. While many kinds of young stuff, including American plants and Conifers, have suffered, Wellingtonia has proved itself as hardy as its great namesake, the Iron Duke ; but we see *Pinus insignis* injured in places, and the tops of young plants of *Cupressus Lawsoniana* and *Goveniana* slightly so.

The discussion in the House of Commons on the ornamental planting in Hyde Park, we hope, will have the desired effect of making those in

charge exercise more judgment in planting than has hitherto guided them; anything more discreditable to all concerned in the matter than the wretched exhibition at the Marble Arch, we never saw. What would any private gentleman, after spending hundreds of pounds in planting, think of his gardener, who, when all his plants were dead or dying, told him, that he had taken them up again because the ground had not been properly prepared for them in the first place. We hope the new Commissioner will look into this most unsatisfactory affair.

The Horticultural Society is now fairly under sail, and the large addition of new Fellows would seem to point to a permanent prosperity. We rejoice at this significant fact, and can only hope that, profiting by the experience of the past mismanagement, the resuscitated Society may now really direct its energies to the development of experimental and practical horticulture; the ornamental part it appears fully bent upon carrying out, by the announcement of what it is about doing at Kensington-gore.

G. F.

THE SIX OF SPADES.

CHAPTER III.

SITTING next to Mr. Chiswick, whose dark-brown locks contrast with Mr. Oldacre's silvery hair, like *Perilla nankinensis* with *Cineraria maritima*, my gardener puffs his pipe. Silent and thoughtful, as one who is wise at whist, he knows every trick in spades, and holds winning cards in his hand. We have scored the honours, have we not, old friend, in many a floricultural rubber, and proved on many a board of green cloth our capabilities (dare I say our cup-abilities?) at a bumper. Trained in no ducal gardens, taught in no colleges of science, you have learned your lesson, slowly but surely, from the greatest teacher of your art, Experience, bringing to her school that love which she delights to instruct, and which alone can master her laborious tasks. There was never, assuredly, a good gardener yet, who was not first of all a gardener at heart.

My earliest associations with horticulture, recalled as I look upon that old familiar face, were not of a jubilant kind. I have to confess that, at the premature age of five, I gave lamentable proof of my descent from Eve by strong yearnings after forbidden fruit; and that at six, I was an experienced felon—no, not a felon, for his crimes meet with capital punishment, and mine were avenged elsewhere—but, at all events, an artful thief. Neither so expert nor so shrewd, however, as to escape discovery and a just disgrace. My chief strategy, when, a tiny brigand, I prowled the earth for prey, was to enter the kitchen-gardens as unconcernedly as possible, and then to call loudly, “Dardner! Dardner!” If he responded, I would favour him with one of those spirited comments upon the weather in which we English are so happy, even from childhood, or would make inquiries of a most affectionate (and affected) order as to the condition of his bodily health; and it was, “How do, Dardner? Fine day, Dardner! Dud morning, Dardner dear!” But

if there was no respondent in the case, I, the appellant, immediately resolved myself into a Fruit Committee (all articles to be tested by flavour), and proceeded zealously to business.

One dismal day, no reply having been made to my accostals, I had reached the Gooseberries, and had taken up my position as a Squatter in (the vicinity of) the Bush, when I suddenly heard with horrible amazement a rustling sound among the Scarlet Runners, and, like a tiger from the jungle, sprang the dreadful Dardner on his prey!

How vividly I recall that awful capture!—the tedious procession to the house, which I did my best to enliven with brisk but ineffectual kicks; the astonished horror of the under-nurse, who immediately foretold my speedy translation to a penal settlement, and could not have expressed herself more severely if I had shot the bishop of the diocese; the trial by Fury, for such the head-nurse seemed to me in her wrath; the solemn sentence, “Put him to bed!” Undressed, accordingly (I flatter myself that the operation was attended with some difficulty; there were buttons on the floor, I remember; and the Judge’s cap was considerably rumpled), imprisoned, “cribbed, confined,” I dreamed a memorable dream. I was in a garden, and a sweet little fairy invited me to climb the magic Beanstalk. Glorious music from the silver horns of Elfland sounded softly around us as we reached the summit, and as we wandered among the most beautiful flowers and the most delicious fruits. No Dardners marred the prospect; and the fairy pressed me to refresh myself, with an earnestness which I was unwilling to offend. I was regretting, over my fourteenth Peach, the lamentable escape of juice, which is so inevitably connected with the out-door fruition of this fruit, and was meditating a transfer of my attentions in the direction of some white Nectarines, when all at once the sunlight faded, and the music was drowned by a thunderous bellowing which shook the “Royal Georges” from their trees. A giant’s hand was laid upon my throat; and I awoke to see Nurse at my crib-side, standing before me, as Queen Eleanor before Fair Rosamond, with a cup in one hand (rhubarb and magnesia), and a dagger in the other, to wit, a dry old finger-biscuit, which I was graciously privileged “to take after.”

You feel for me, reader;—don’t you? I make no attempt, you will observe, to disparage the seasonable use of physic; I know that Nemesis is the sworn friend of Pomona, and that he who robs the orchard feels justly her avenging gripe; I could forgive Dardner for catching me at the Gooseberries; for smiling many a time, as I have no doubt he did, when the doctor’s gig drove up the avenue; for the remark he made, on the occasion of my reappearance after a somewhat serious surfeit, that “he was afraid the pretty bird, who ate his Morello Cherries, had hurt his little beak against the stones;” I could forgive him so far, and I could forgive Nurse for putting me to bed; but to make me swallow that vile nauseous mess, as an antidote to a perfectly impossible stomach-ache, to treat me as one surcharged and plethoric, when I was as hollow, sir, as my own drum; you must agree with me—although the mixture did not—that no insult could have been offered to me with a worse taste, and you will be glad to be told hereafter that I had my revenge. And here, as the champion of injured innocence, I protest

solemnly against that flaunting display of the Family Medicine Chest, which I have noticed in some nurseries. The position of our own was fulsome. Each morning it met my awaking sight, with its hard, cold stare of brassy insolence; and it shone in the firelight, when I lay abed at eve, as though polished with the Oil of Castor. The expression of countenance with which the nurses pointed to that box was fiendish; and the way in which they unlocked it, and loitered over the preparation of its doses, was worthy of the Inquisition in its best and happiest days. Somebody filled the keyhole, on one occasion, with an unusual but ingenious combination of coal-dust and batter-pudding; and somebody chuckled in his crib, you may be sure, when Nurse broke both lock and key.

Now let me propose briefly to my brother Spades and others a thought or two concerning the treatment of little children in gardens.

With regard to flowers, let children be taught from the very first to admire, to love, and to cherish them, not to regard them as temptations to mischief, and to connect them only with uneasy recollections of punishment. When Master Johnny decapitates his first Tulip, or brings in his first Hyacinth, roots and all, from the borders, don't treat him as an abandoned ruffian, and make him frightened at flowers for life; but show him with a calm and gentle tenderness the perfect beauty which his hands have spoiled, and tell him reverently Whose work he has undone. Let him draw near and gaze, where he may not gather; point out to him the symmetry, the tints, the perfume; remember that there are organs of Benevolence and Veneration, of Form, Order, and Colour, in the cerebral development of that curly pate, as well as of a Covetous and Destructive tendency; appeal to his higher, holier self, converse with the Christian that is in him; ignore what is evil (for he will understand your tacit abhorrence), until there is stern need of open censure; trust, instead of suspecting; talk to him of prizes, instead of prisons, patting his back with your open hand, instead of shaking your fist at him; and, as surely as Love and Truthfulness are better and stronger than Deceit and Hate, you shall find in that little heart such a sympathy with all things pure and beautiful, as shall bow your head in shame.

With regard to fruit, I should be inclined, I think, to deal with little children, as confectioners and grocers are said to deal with their newly-entered apprentices, and to give them a free range. I should, simultaneously, forewarn them thus: "Ladies and gentlemen, you are now at liberty to make yourselves as ill as you please. These sour Apples and unripe Plums are absolutely at your disposal. You will oblige me by abstaining from the green Gooseberries, until I have withdrawn a space, as the *cranch* is painful to my nervous system; but, subsequently, every bush is yours. Your meal will be followed by a variety of aches and pains, for which you will have to swallow some of the nastiest medicines known. These Nurse shall bring to you in a large teacup. If you would prefer to wait until dessert-time, you can have some nice ripe fruit with Papa and Mama, and a glass of Cowslip wine instead of Black Dose; but pray please yourselves. Good morning."

They would attend dessert, ultimately at all events, to a man. Bolts

and bars tend only to enhance our longings, to excite suspicions in our naughty little breasts that fruits which are so strictly guarded must be of the most delicious order ; and each small conspirator whispers to his brother, " It's rubbish, Tommy, about their being unwholesome : they only want them for themselves."

I must tell you now (how one loves to linger even among the naughtinesses of early youth!) how I essayed to avenge myself upon our Gardener for his artful ambushade behind those Scarlet Runners. He had, in those days, the finest Peaches in our neighbourhood ; and upon the occasion of our giving a grand dinner, at which the Ducal party from the Castle graciously assisted, he had sent in such a dish of them as could not be surpassed in the county. The specimen which crowned the pyramid was enormous (" Monstreuse," though not " de Doual"), and was the largest I had ever seen, save one, which my eldest sister had made in wax, and in which, so far as size was concerned, she had considerably exceeded the powers of nature. When our guests had arrived (we saw them go through the hall, we little ones, as we stood in our night-gear upon a distant landing, like tipsy Pecksniffs on a reduced scale), and had seated themselves at the banquet, what do you think I had the audacity to do? I stole down stairs, imperfectly accoutred as I was, and substituted the artificial for the real Peach, secreting the latter in a cupboard of the housekeeper's room, where the dessert was lying in state!

Two hours later, some of the ladies were brought up " to see the children." They found me, as you will conjecture, particularly fast asleep. I was located in an inner nursery, which seemed to be regarded that night, as a small chamber of horrors, attached to the general exhibition. " Is that the arch traitor," I heard Lady Isabel ask, " the villain slumbers soundly ! let us kiss the hoary miscreant." And then I heard how successfully my scheme had sped. The pyramid had been placed in the centre of the table, and the big Peach had been admired by all. Papa had been complimented, as though he did the pruning and nailing, and general management of the wall trees, himself. The Duke had facetiously suggested that it should be taken to a side table, and carved like a round of beef. Squire Granville prophesied that, when it was touched, there would be such an inundation of juice, as would compel the company to swim for their lives. Finally, the Duchess had been persuaded to divide it with her neighbour, and then the imposture was discovered. It had been such fun ! Every one had been amused, and Papa, though he seemed puzzled and annoyed at first, had laughed most heartily of all.

All this was very successful ; but it was not the success I had intended. Not a word of blame was spoken of him for whose entire confusion and discomfiture I had laid my malignant plans. I alone was censured, and that most mildly. Taken by Mama to the Castle in the carriage, and my new clothes, I had expressed my penitence to the Duchess, and had been immediately punished with a large casket of the most delicious bonbons I ever tasted.

Some years afterwards, for the war continued, and " revenge, Timotheus cried," through my boyhood, I made another hostile experi-

ment, which had a completely felicitous issue. Once a month, Mr. Evans, the gardener, brought in his account book, and used to sit in an armchair by the fire in the servant's hall, awaiting his master's leisure. From an interview of this kind, my father returned one winter's evening to the bosom of his family, in a condition of extreme bewilderment. "Evans had behaved in the most extraordinary manner. Evans, the soberest man on the estate, was ostentatiously intoxicated; could scarcely rise to salute his master, and when he did rise, had brought the armchair with him, and worn it behind him in the most ridiculous manner. Had never seen any one so demoralized and red in the face. And, to crown all, the man had put himself into a passion, and murmuring something about 'standing it no longer,' had sat down with a crash upon his anything but easy chair. There my father had left him; but the first thing in the morning, he would have an explanation—yes, that he would."

I could have given him a very full explanation that evening if I had liked. I had smeared the dark seat of that wooden chair most liberally with cobbler's wax, and had limed my bird securely on his twig.

My father sent for me next morning, after a conversation with Mr. Evans on the subject of his "*séance fantastique*," and commenced an oration of a severe and admonitory character; but he broke down in his second sentence, laughing till the tears rolled down his cheeks, and leaving me master of the entire position, with the exception of the kitchen garden, into which I did not feel inclined to wander for many subsequent weeks.

Then came a period wherein we felt that weariness of quarrelling, which the brilliant but bilious Duc de la Rochefoucault has termed "*une lassitude de la guerre*," in which we still maintained a pugnacious posture, but struck no blows—just as you have seen a couple of pullets, drawn up in order of battle, and confronting each other *tête-a-tête*, but wholly indisposed to peck. Alas! I disturbed this peaceful armistice with an onslaught of unprecedented ferocity. An undergraduate at Oxford, I began to fall in love, indiscriminately, with every pretty girl I saw; and Venus must have flowrets for her golden hair, and fragrant posies for her soft small hand. For her sweet sake ("*nam fuit ante Helenam*," &c.), I commenced such a series of sanguinary raids on the conservatory, as must have made poor Evans's heart to "bleed" almost as freely as his plants. Leaders and laterals, hard wood and soft—now the top of a pyramidal Azalea, to make the centre of a bouquet—now the first fronds of some delicate and costly Fern, to form its graceful fringe—fine old specimens and "nice young stuff;" flowers and foliage all went down in terrible excision, until the place looked as though it were one of Her Majesty Queen Flora's jails, filled with plants of an abandoned character, and having their hair dressed *a la convict*.

O ladies and gentlemen—O dames and damsels with your pretty garden baskets, and long scissors of shining steel—O gallant lovers, with your trenchant Wharnccliffe blades—O mothers and daughters, knocking over the flower pots as you sweep along in your "trailing garments"—O wide-sleeved dandies, breaking the young shoots as you

reach forth recklessly to seize your prey—O belles and beaux, so charming, so amiable, and so profoundly ignorant on the subject of plants! Pause awhile, I beseech you, and stay your ruthless hands, for you know not what fatal mischief you may do. One little snip with those sharp “Rose nippers,” and you may destroy in a moment the pleasant hopes of a skilful taste, and the just reward of a patient industry. You may ruin the symmetry of a plant for ever; and behold hereafter an unsightly dwarf, when you might have gazed upon a glorious Life Guardsman. What should you say, fair lady, were some disagreeable miscreant to intrude upon the privacy of your bright little boudoir, and to extract the tail of your piping bullfinch? And you, my brave gentleman, would your observations be entirely such as your pastor would approve, were you to hear from your groom that some coarse-minded person had paid your stables a visit during the night, and gone the whole hog with your hunter’s manes?

There is provocation, I must allow, sometimes. There are Spades in the floricultural pack, though not in our company (limited), so mean as to the amount, and so sulky as to the manner of their donations, that their scared employers, dare not, finally, ask for a single petal, and so are led to adopt the facile alternative of freely helping themselves.

But how comes it, the question may arise, that the young Oxonian, of whom we heard just now as at fierce war with gardeners, and as cutting and maiming the plants around him with so much brutal stolidity, how comes it that he has suddenly put off the paraphernalia of battle for the peaceful apron of the florist, and changed his sword into a pruning knife?

Of this transformation, the happiest event of my life, I must speak hereafter; appropriately, I think, in a little lecture upon Roses, which I am preparing at the request of “The Six of Spades;” but I must first introduce you to the rest of our brotherhood; and now, if you please, to that quaint, hearty, hard-working, plain-speaking, cheery fellow, Joseph Grundy, head gardener, coachman, &c., &c., to the good old ladies at the Grange.

S. R. H.

CULTURE OF THE APPLE.

THE Apple tree thrives best in a soil that is neither too dry nor too moist. In hot sandy soils it is apt to canker; wet subsoils occasion disease, and are frequently indicated by the trees becoming overgrown with Moss. The ground for an Apple plantation should therefore be well drained; so that if holes are dug out to the depth of at least three feet, water will not spring up in them. All land-springs should be cut off; spring water being much colder than the summer rains. Moistened by the latter, the trees grow vigorously; but spring water chills the roots with which it is allowed to remain in contact, and the warm sap that returns from the leaves to increase the roots, being checked by the cold when it approaches them, the formation of good roots is prevented; and without these the trees cannot thrive.

After the ground is well drained, it should be trenched to the depth of between two and three feet, if the soil is so far good. When the soil is well loosened to a considerable depth, the trees obtain a better supply of moisture in dry seasons than they do in shallow soils. The bottom of the trenches should either be made level from end to end, or form a regular slope towards a drain; and the surface should have the same inclination as the bottom. Plenty of manure should be supplied as the trenching proceeds; and it had best be placed between one and two feet below the surface. If a compost of turfy loam and dung can be prepared for planting the tree amongst, it will ensure a growth in the first season.

Autumn is the best season for planting. If moved before the leaves have fallen, the shoots are apt to shrivel to some extent; but as soon as the greater portion of them has dropped, the operation should be no longer delayed, provided the soil is in working condition.

The hole in which the tree is to be placed should be dug out so large that the roots when extended cannot reach the sides. Square holes are preferable to round. They should be as wide at bottom as at top, unless the soil is very loose; and the bottom should be somewhat higher in the middle than at the sides. This being the case, the tree when being planted, will be on a slight mound, on the surface of which the roots should be regularly extended; none should be allowed to cross; for if they do they will squeeze each other when they grow large. When trees are carelessly planted, with perhaps most of the roots to one side, they are apt to be upset by heavy gales. Some tolerably fine rich compost should be spread over the fibres and carefully introduced among them, shaking the tree a little; but it should not be pulled up to some extent and then pressed down, for by so doing the fibres are doubled. When the roots are well covered, a good watering may be given; and next day the holes may be filled in level.

Grafting.—Grafts should be taken off before the sap is in active motion, in spring; in general any time in January and before the middle of February. They should be kept in the shade, with their lower ends in the soil, or in moist sand, till the grafting season in March. Stocks that are to be worked, or old trees that are to be regrafted, should be cut back not later than January. Indeed large limbs are best cut back in December, but not when they are in a frozen state; and then in February, before the scion is put on, a portion may be cut off about half an inch lower.

The operation of grafting is easily performed. The mode of whip-grafting is the best. It is so called from the stock and scion being joined together like the splicing of the handle of a whip. There is however this difference to be observed—in the whip, the outsides of two pieces are made to fit; but in grafting, the *inner barks* of the scion and stock should be placed against each other; and if this is done as nicely as possible, the graft will be sure to take well, all other circumstances being favourable. Now, unless the barks of the scion and stock are of equal thickness, which is rarely the case, the outer barks of scion and stock will never correspond, if the inner barks do so; this, it must be repeated, they always should do, in order that the most perfect union may take place.

It is necessary to explain, that in grafting it is not the two surfaces of scion and stock that unite: it is by a soft substance which protrudes from between the wood and the inner bark of scion and stock, that a vital union is formed. It is this substance issuing from stock and scion which grows together; for the woods of the respective parts already formed, never do so.

In performing the operation, cut the scion in a slanting direction, and so as to be quite thin at the lower end. The stand may be about two inches and a half long. Then cut a slice off the stock, so that the inner barks of stock and scion may fit each other when placed together. Next make a cut a little downwards in the stock, and a similar one upwards in the scion, so as to form a tongue to fit into the cut made in the stock. These cuts should be made near the upper part of the slope of the scion, and almost close to the top of the sliced-off part of the stock. When properly fitted, the stock and scion should be tied with matting, and surrounded with grafting clay. When the graft has pushed a shoot, the matting should be loosened; otherwise it will cut into the graft as the latter increases in thickness. When loosened, the graft should be retied, but not very tightly.

If the stocks are strong, the graft will make a vigorous shoot in the course of the summer, and may be planted in autumn; or it may be allowed to grow for another season. But, whether removed or not, the plants should be reared with good stems—such as will support their own weight without bending, although more than six feet long. Instead of this, young standard trees are frequently seen as slender and flexible as fishing rods: this is owing to the stems being stripped of foliage as they are being reared. It should be recollected that the substances of all the solid parts of a tree come through the leaves: the substance of all the timbers of a man-of-war passed at one time or other through green leaves. If we wish to have a stout stem in a short time, we can only obtain it by encouraging plenty of healthy leaves. These should be allowed to grow all along the upright young shoot from the graft, in the first season. They will, of course, drop in autumn, but each will leave a bud, and next spring many of these buds will push into shoots, if they are not rubbed off, as is the bad practice of some persons. Instead of so doing, the side shoots which push from the stem should be allowed to grow till the end of July, and then their ends may be pinched off. These shoots will bear foliage that will contribute to the thickening of the stem; and this, rendering it self-supporting, is a very important object. But this is not all that results from allowing young shoots and leaves to grow along the stem; for, if there are many leaves, there will be many roots, and with plenty of the latter, the tree soon attains a large size. Having obtained a stout stem, it must, for a standard tree, be ultimately rendered clear of branches to the height of at least six feet; therefore all side growths must be done away with, as soon as they can be spared from doing their duty in assisting to strengthen the stem and roots. Therefore, when the tree makes shoots to bear a considerable amount of foliage above the height of six feet, the lower branches on the stem should be first cut off; and those left should be reduced by shortening. In the following autumn, the stem should be

cleared a little higher, or even to the required height, if it has by that time made plenty of top.

Treatment of Apple trees that have become unproductive.—In order to ascertain the cause of unproductiveness, the condition of the soil and subsoil, as regards moisture, should be first examined. If too much moisture is suspected, test holes should be dug as deep as the roots descend. If water remain stagnant in these holes, it is a sure indication that drainage is required; and the beneficial effect of deep and thorough drainage on ill-thriving orchards, has in a few years proved astonishing.

On the other hand, if the subsoil be found to be too dry, means should be adopted to render it completely moist. This should be done in March, and repeated during the summer, if found necessary. In order to ensure the water reaching the subsoil, several trenches about a foot wide should be dug out round the trees, and as deep as can be done without injuring the upper roots. Such trenches, forming circles round the tree, may be three feet apart. They should be filled with water, and kept refilled till the subsoil is thoroughly moistened. If manure-water can be afforded, so much the better.

If the subsoil is of bad quality, and the tree too old for removal, the roots may be uncovered, and a layer of compost of dung and loam placed over them. In this, young roots will form abundantly, to feed the tree with good nourishment.

If unproductiveness arises from the poverty of the soil, a plentiful application of manure is of course necessary. Farm-yard manure, with a mixture of fresh loamy soil, is better than manure alone.

When trees become unproductive in consequence of old age, and long bearing of heavy crops, the roots should be shortened, and fresh rich soil introduced for young fibres to strike into; then the tops should be considerably reduced by thinning and shortening. The shortened branches will very likely push some vigorous shoots. Let these shoots be cut back, at the winter pruning, to one-fourth of their length. From the portions left, more vigorous shoots will proceed, which may be shortened at the next winter pruning, to half their length, and at the same time some more of the old worn-out part of the top should be removed; and thus the tree will be renovated, so as to be again in condition to bear good crops.—MR. ROBERT THOMPSON, in *Journal of the Bath and West of England Society of Agriculture*.

HORTICULTURAL SOCIETY.

THE following are plants that have been submitted to the Floral Committee of this Society, in 1859, and received First Class Certificates, except in the instances named as commended.

VERBENAS.

Dr. Sankey (Edmonds), average truss of large and finely formed pips, rosy puce, with lemon eye. Awarded First Class Certificate.

Clara (Perry), fine form, colour pale peach, with lemon-coloured eye. Awarded Label of Commendation.

Thetis (Edmonds), a very showy blue purple, with large conspicuous white eye. Awarded a Label of Commendation.

Mrs. Moore (Edmonds) a deeper and redder purple than Thetis, and a well-defined white eye. Awarded a Label of Commendation.

Firefly (Low), bright scarlet, an excellent bedding variety. Awarded a Label of Commendation.

BEDDING GERANIUMS.

Blackheath Beauty (Halley) dwarf habit, with neat heavily horseshoe-marked leaves and salmon-coloured well-formed flowers, with white eye and fair-sized trusses.

Sheen Rival (Kinghorn), dwarf and robust in habit, with heavily horseshoe-marked leaves, marbled green in the centre, flowers large cerise scarlet, borne in fine bold trusses.

Smith's Improved Ivy-leaved, a variety with deep crimson flowers; and Victor Emanuel, a vigorous-habited variety, with large trusses of well-formed scarlet flowers on very long footstalks, were also exhibited.

FUCHSIAS.

Solferino (Smith), dwarf, free-flowering habit, tube short, sepals reflexed with crimson, corolla deep purple, bud oval.

Solon (Smith), dwarf and free, with large flowers, sepals perpendicularly reflexed, bright crimson red, with a prominent purple corolla veined with crimson at the base.

Marquis of Bath (Wheeler), has deep coral red flowers of great substance, with a full, double, compact, deep purple corolla; altogether, a variety of fine character, and was considered the best of the double-flowered varieties that had come under the notice of the members present.

Lord of the Isles, Hero of Wilts, and Robin Hood (Wheeler), all double-flowered varieties, were also exhibited.

PETUNIAS.

Harlequin (Low), a double-flowering variety, with pretty purple flowers, very distinctly striped with white.

Peerless (Spary & Campbell), very dwarf in habit, with large, rich, purple-crimson flowers.

CARNATION.

Sir H. Havelock (Turner), a scarlet-flake variety of first-rate properties.

PICOTEES.

Rival Purple (Turner). Commended as a good and useful flower; a heavy purple-edged variety.

Rev. A. Matthews (Turner). Commended as a good and useful flower; a heavy rose-edged variety.

FERNS.

Pteris argyrea (Veitch & Son). A most beautiful object (introduced from Central India), of vigorous habit, with fronds 5 feet long and of an entirely distinct character, being the first well-marked variegated Fern introduced to cultivation. A most valuable addition to our garden Ferns.

Lygodium polystachum (Veitch & Son). A very ornamental and distinct-habited Fern, from Central India, quite unlike other species of the genus.

Athyrium filix-fœmina, *var. multiceps* (Moore). A very handsome addition to the crested hardy Ferns, distinct from any previously known form of that tribe.

Drynaria quercifolia (Veitch & Son). A fine and scarce Fern, remarkable for the dissimilarity between its dwarf sessile-oak-like sterile fronds and the taller more developed form which bears the fructification.

Selaginella Lobbii (Veitch & Son). A new and extremely ornamental Lycopod, of tall-growing habit, and of a fine blue metallic tint.

S. atroviridis (Veitch & Son). A new, distinct, and useful addition to the family of Lycopods, of dwarf habit.

- S. Griffithii* (Veitch & Son). Of dwarf and elegant habit, and dissimilar from others in cultivation.
- S. Wallichii* (Veitch & Son). A remarkably handsome new Lycopod, a native of India, and one of the most distinct and beautiful in the whole family.
- S. conferta* (Moore). A native of Borneo, distinct from the foregoing, and of very ornamental character.

BEGONIAS.

- Begonia Lowii* (Low & Co.). The novel character and intrinsic beauty of this variety consist in the purity of the silvered surface, relieved by an amount of green at the border and near the centre, just sufficient to produce a pleasing contrast; its small size and dwarfness are also recommendations.
- B. Gem* (Low & Co.). A charming dwarf variety, and very desirable new form of this family.
- B. zebra* (Low & Co.). Of the same dwarf habit as *B. Gem*, and of the same parentage. Commended for its distinctness.
- B. blanda* (Parker & Williams). Stated to have been bred between *B. splendida* and *B. Thwaitesii*. The colours of the leaves are well disposed and rich-looking, and it is one of the finer and more distinct of the varieties of the season.

EFFECT OF A HOT CLIMATE ON EUROPEAN FRUITS.

"It is at these elevations that the sameness of the scenery is diversified by the grassy patches above alluded to, which in their aspect, though not their extent, may be called the Savannahs of Ceylon. Here Peaches, Cherries, and other European fruit trees grow freely; but as they become evergreens in this summer climate, as if exhausted by perennial excitement, and deprived of their winter repose, they refuse to ripen their fruit. A similar failure was discovered in some European Vines which were cultivated at Jaffra; but Mr. Dyke, the government agent, in whose garden they grew, conceiving that the activity of the plants might be equally checked by exposing them to an excess of heat, as by subjecting them to cold, tried, with perfect success, the experiment of laying bare the roots in the strongest heat of the sun. The result verified his conclusion; the Vines obtained the needful repose, and the Grapes, which before had fallen almost unformed from the tree, are now brought to thorough maturity, though inferior in flavour to those produced at home." . . . "the Apple-tree in the Paradenia garden seems not only to have become an evergreen, but to have changed its character in another particular, for it is found to send out numerous racemes underground, which continually rise into small stems, and form a growth of shrub-like plants around the parent tree."—*Ceylon*, by Sir JAMES E. TENNENT, vol. i., p. 89 and note.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—Specimens of the former, which may be wanted to bloom late, should be carefully guarded from excitement at present, giving air freely on every favourable opportunity, and using fire heat only when there is a danger of the temperature sinking below 35°. These should be placed in a north house, however, after this season; but if this cannot be done, place them as much out of the way of being

affected by bright sunshine as circumstances may permit, and if the weather proves warm and sunny shade on the forenoons of bright days, giving air freely only when there is no danger of frost. Plants which have done blooming should be repotted, if they require it, and placed in a warm moist atmosphere, so as to have them ready for forcing early next season. Young plants of new or other kinds, which it may be desirable to increase the size of as quickly as possible, should be placed in a moist warm temperature, first repotting them, if necessary, and nicely tying out the shoots in the form which may be desired. Azaleas, when subjected to artificial heat, are very subject to be attacked by thrips, and these pests must be guarded against by timely fumigation, or the application of some other approved remedy; for if allowed to gain a footing, they soon disfigure and greatly weaken and injure the most vigorous plants. Attend to last month's directions as to Camellias. The present will be a suitable time for cutting back, shaking out, and repotting any plants of these which may have fallen into an unhealthy state. The balls of such plants should be reduced as much as can be done without injuring their healthy roots, repotting them in fresh fibry compost, liberally intermixed with silver sand, which should be made rather firm, using as small pots as the balls can be conveniently got into, and placing the plants in a close, shady, rather warm, moist atmosphere. These are of all winter-blooming plants we possess the most gorgeously beautiful, and when well done repay a hundredfold the utmost care that can be afforded them. *Conservatory*.—Plants removed here from the stove or forcing-house should be placed in the warmest part and out of the way of currents of cold air, otherwise the beauty of many things will be soon over. Attend carefully to specimens planted out in the beds or borders, and see that these do not suffer for the want of water at the root, nor by overcrowding by plants in bloom. Cut back Acacias, Camellias, &c., which have done flowering, so as to secure a close bushy growth, and see that none of the permanent specimens are infested by insects of any kind. Twiners which have been planted for some time, and make but a spare growth, should be surface-dressed with some rich compost. Such things as Passionflowers, &c., will enjoy a liberal allowance of thoroughly decayed manure, but an inch or two of the surface soil should first be removed, so as to allow of this being applied without raising the soil above the collar of the plant; but good, fresh, fibry soil, mixed with a slight sprinkling of bone dust, will be safer for Kennedys and other New Holland plants than a richer compost. Do not allow plants starting into growth to be injured by aphids, and many hard-wooded plants are liable to have their young growths disfigured by these pests, therefore keep a sharp look-out for them, and either smoke or use some other remedy directly they are perceived. *Cold Frames*.—Give air freely on every favourable opportunity to Cinerarias and Calceolarias, and see that they are properly supplied with water at the root, and do not place the plants too closely together. Plants for late blooming should be shifted into their flowering pots, if not already done. Apply tobacco smoke directly aphids is perceived upon these, and occasionally as a preventive, as green-fly, if ever allowed to get fairly established upon these, can hardly be got

rid of without great risk of the foliage being injured. Push on the propagation of stock for the flower-garden, &c., with the greatest possible dispatch; also get autumn-rooted cuttings potted off as soon as convenient, so as to have these strong and well established by planting-out time, without having to subject them to artificial heat. See that Calceolarias, Verbenas, &c., are not infested by green-fly. Sow seeds of such things as Phlox Drummondii, Linum grandiflorum, &c., Stocks for early blooming, Lophospermums and other twiners, and where these are wanted to bloom early they should be sown at once. *Flower Garden*.—Any alterations in hand here should be finished with the greatest possible dispatch; walks and turf rolled, and otherwise attended to, as may be necessary to put them into perfect order. Get Roses pruned—Teas and some of the more tender Chinas excepted, which had better be deferred a little longer; and if not already done, apply a liberal allowance of manure to the whole stock. Well decomposed cow-dung is perhaps as good as anything for Roses, but strong liquid manure will be found an excellent substitute, and can be used where solid manure, in any useful bulk, could not be conveniently applied. Also get ground intended to be planted with Roses prepared, if not previously done, giving it a very liberal allowance of well-rotted manure, and finish planting as soon as convenient, leaving Teas and Chinas which have been wintered under glass until towards the middle of next month. Finish the re-arrangement of herbaceous plants, also the transplanting of shrubs. Sow hardy annuals for early blooming, not forgetting a liberal supply of Mignonette, and thin out and transplant autumn-sown annuals before they are injured by overcrowding. Plant out in nicely prepared ground autumn-rooted Pinks, Clove Carnations, Pansies, Hollyhocks; also Gladioli, or any other bulbs remaining out of the ground. *Greenhouse*.—Look over last Calendar, and attend to the directions given there. Specimens must not be kept too dry at the root, especially should the weather be bright, with drying winds; and on cold bright days air should be given, principally on the sheltered side of the house, sprinkling the paths, &c., so as to counteract the effects of the drying winds. Shut up early in the afternoon when there is any appearance of frost, so as to avoid as much as possible having to use fire heat. Any plants requiring more pot room should be shifted at once, placing them in the closest part of the house, out of the way of drying currents, and carefully attending to them with water, &c., until their roots get hold of the fresh soil. Do not overcrowd the plants; keep them as near the glass as convenient, and turn them half round frequently, to prevent their becoming one-sided. Attend to providing a good supply of Fuchsias, &c., for summer blooming. *Stove*.—Pot a batch of Achimenes, Gloxinias, Clerodendrons, &c., which will be found useful for the conservatory when the hard-wooded plants are over. See that young growing plants are properly supplied with pot room, and use every diligence to keep all insect pests in check. Maintain a moist atmosphere, sprinkling the floors, &c., frequently on bright days, and syringing the plants overhead early in the afternoon, giving particular attention to anything known to be subject to red spider. The temperature should now range from 70° to 85°, giving air

so as to avoid cold drying currents passing over the plants. Shut up early in the afternoon so as to economise the heat from the sun. Attend to regulating the shoots of *Dipladenias* and similar things as they advance in growth. *Allamandas* should be allowed to grow at liberty until they are well set for bloom, and these should be fully exposed to the sun and not kept too close, otherwise some of them may make more wood than bloom.

Fruit (hardy).—The pruning, nailing, &c., of every kind of fruit tree, with the exception of Figs, ought to be completed by the middle of the month; therefore, if any remain undone, proceed with the work without further delay. If Peach, Pear, or other fruit-trees are infested with *scale* of any description, prepare a mixture of soft soap, sulphur, and tobacco water, thickened with a little soot and lime, or clay; paint the trees over with a small painter's brush; avoid touching the buds if the trees are in a forward state. Protect Peach, Apricot, and other choice fruit-trees from spring frosts, and, as before stated, if the covering used is thicker than a herring-net, it ought always to be removed in the day-time, otherwise better not protect at all; doubtless, the best of all covering is a canvas fixed on rollers, which may be let down and drawn up at any time without occupying much time. Orchard houses and glass cases should have air daily during sunshine, but close early, if any appearance of frost at night. Sprinkle the trees occasionally in the morning in bright weather, but be sparing of water on the paths and floor of the house; too much moisture during a low temperature is very injurious to the blossoms of fruit-trees. Prune Filbert-trees when the blossoms are visible; shorten and cut out all small shoots that do not show for fruit; keep the centre of the trees open. Plant Strawberries as before advised, and use the hoe frequently in dry weather, round the plants in the fruiting beds. Finish planting all kinds of fruit-trees, if not already done, and top-dress with manure all fruit-trees that are in a weakly condition. Graft Plums and Cherries the beginning of the month; large trees of Pears and Apples, headed down for grafting, had better be done next month. *Kitchen Garden.*—If previous directions have been attended to, and the weather is dry, the ground will now be in good condition to receive the various seeds required to be sown this month. Make sowings of Peas to follow in succession, such as *Champion of England*, *Scimitar*, *Veitch's Perfection*, and tall Marrows; earth up those in a forward state to protect them from the cutting winds. Plant Windsor and Long Pod Beans, and draw earth to the early crops. Sow the main crop of Onions, Parsnips, and Early Horn Carrot; also Ash-leaf, Early Oxford, or Shaw Potatoes, or other favourite sorts; the Dalmahoy is a first-rate Potato, it is an excellent kind of early Regent, a second early. Make sowings of Snow's Early Broccoli, Walcheren and other Cauliflowers, Red Cabbage, Brussels Sprouts (of which the Roseberry is a good kind), early Cabbage, Cottagers' Kale, and Green-curved Savoy. Plant out Cabbage, Cauliflower, and Lettuce, and prick out those sown last month under glass. Sow early Turnip, Spinach, Lettuce, Parsley, and Radish in succession, and Celery on a slight hotbed. Protect Rhubarb from

frost with pots or litter. Plant Seakale the end of the month, and cover those roots with ashes or leaves that are intended for the last cutting. Turn walks, clip Box edgings, and make all clean and neat.

Forcing Ground.—Maintain a good heat to Melons and Cucumbers by turning the linings, and adding a little fresh dung and mixing it well together. As soon as the plants begin to spread pinch out the points of the leading shoots and keep the rest moderately thin. Add fresh earth as they may require it, using a little at a time, so as not to chill the bed. Plant out those sown last month, and if the beds are too hot, place some thick turf under the plants to keep the roots from burning. Sow again about the middle of the month. Ash-leaf Potatoes may yet be planted in frames, and earth up those in a forward state. Give plenty of air to Peas, Carrots, Radishes, Rhubarb, and all other things under glass. Bring in fresh roots of Seakale and Asparagus, to follow in succession. Sow Capsicums and Tomatoes, in heat, and keep up a supply of small salad by sowing every week. Keep up a good heat to French Beans, and syringe often to check the red spider. Now is a good time to plant a warm pit, to come in use the end of April and May.

Strawberries.—Use the syringe freely where the fruit is swelling, and do not allow the plants to get dry; manure water at this stage is very beneficial, and may be given freely. This is a good time to place Strawberry pots in cold pits or late vineries, to succeed those in the forcing-houses. If the stock of plants in pots is scarce, this is a good time to pot some strong young plants from the open ground; if they are lifted with care with a ball of earth, potted, and placed in the houses at once, they will do well and produce a good crop of fruit.

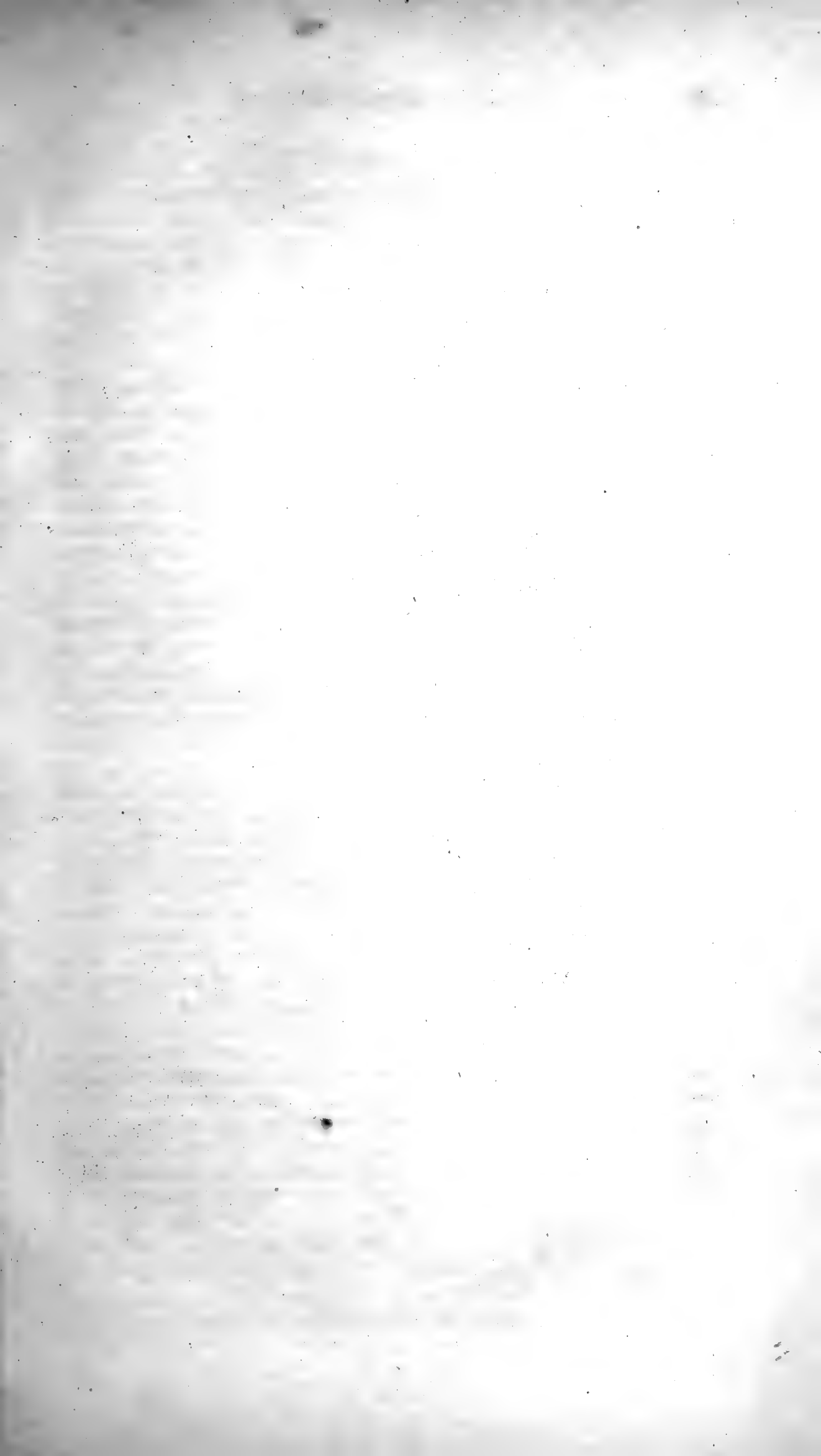
Peaches and Nectarines.—See last month's directions. *Vinery.*—Continue to stop and regulate the shoots, and thin the berries in the early houses. Keep the atmosphere more humid than before advised until the fruit begins to colour. Now that we have more solar heat and light increasing, the temperature in the succession houses may range higher; from 65° to 70° is a good average night temperature. Muscats require a strong heat with plenty of air, to set them properly. Vines in pots, where the fruit is swelling, should be well supplied with manure-water. The pots should be plunged, or otherwise shaded from the sun; it is a good plan to place a turf over the pot. Put in Vine-eyes early in the month, to strike; plunge the pots in a good brisk bottom heat. This is a good time to start the succession Vines, for fruiting in pots next season.

Pines.—Pot suckers for succession, and give all the plants a shift that may require it; if not done the end of last month, turn the beds, or renew them if necessary, before the plants are replaced in the pits. In potting, use a free, porous, turfy loam, and do not press it too firm in potting; water sparingly, and keep the plants close a few days after potting. We strongly advise the planting-out system, and all Pine-growers who have the convenience will do well to adopt that plan. See article in last month's number on this subject, page 48.

Plums and Cherries.—Keep a night temperature of about 60° in the Cherry-house, with an increase of 10° or 15° by sun heat. Syringe the trees often, and give abundance of air when the trees are in bloom, and of course at that stage less moisture is needed.

FLORISTS' FLOWERS.

Auriculas.—If the directions given last month have been attended to, these lovely spring flowers will be all on the move, and towards the end of the month will be throwing their trusses up. In this state they require constant attention, a liberal supply of water, great cleanliness, and careful covering at night; for though frost will not easily kill them it will materially injure the bloom, crumpling some, and splitting the paste of others. Do not allow the trusses to be overcrowded with pips, but cut them out with a sharp-pointed scissors. It is now (Feb. 14), most bitter weather, and I much fear for the bloom this spring. Personally, I eschew liquid manure; but if used, it ought to be with caution, as stimulated plants are sure to suffer by and bye. *Carnations and Picotees*.—Growers ought to be prepared “for all eventualities,” for towards the end of the month, if fine, potting may begin. Previously to that time the compost ought to be well turned over; worms, and their eggs—and specially and above all that villain *wireworm*—picked out, pots got ready, plenty of drainage at hand, and some place for temporary protection provided. Let no sickly plants be potted up, it is of no use; they only wither and die, and disfigure the symmetry of a well-grown collection. Disturb the balls when potting as little as possible, and should the weather be mild they will not receive any injury from rain, provided they got plenty of air. *Chrysanthemums*.—Those who grow for exhibition will attend to the excellent instructions given by Mr. Wiggins, in last month's *Florist*. Those who do not, will now see that the plants are making good stock for cuttings to be taken off next month, and all who can will add to their stock any varieties they may think worthy of it. *Dahlias*.—Start the tubers for cuttings, and take them off as soon as possible, thus avoiding long-jointed plants; it will depend on the grower's capabilities and wants as to how this is to be done. Of course a forcing-house is best, but a dung-frame will also answer; if in the latter, great care must be taken that the tubers do not rest on the dung. This year will add, I think, some good varieties to the list, but there is no flower more uncertain or disappointing than the Dahlia in its seedling state. *Pansies*.—These are rapidly making growth, and will require abundance of air and a tolerably liberal supply of water. Watch for green-fly, and fumigate; I do not know enough of “Gishurst” yet to recommend it. *Pelargoniums*.—Those for the early shows will now require to be still further tied out and staked, and the plants kept well turned round, so as to make them of a good shape. Liquid manure, carefully made, may be cautiously supplied. Green-fly must not be allowed to get ahead, which it is apt to do. Those for the later shows will require much the same treatment, only experience can decide as to the exact time for all operations; in general collections, air, water, and fumigation are the three things to be attended to. *Pinks*.—Little can be done with these, if the bed has been top-dressed, save keeping all clean. This severe winter has been trying to them, but when they do begin to grow they make astonishing progress.





The Salway Peach.

Plate 163.

THE SALWAY PEACH.

(PLATE 163).

OF this new variety, we this month furnish a coloured illustration. It is the most valuable and latest of all Peaches. The fruit from which our artist made the drawing was from the original tree, which is growing under very unfavourable circumstances, consequently the fruit is below its average size. Very fine examples of it have been produced at Frogmore, and last season we saw a fruit grown there, on a tree worked on the Plum stock, that measured 13 inches in circumference, and weighed 11 ounces. This shews that under favourable circumstances and good management it will rank among the largest of Peaches.

The fruit, as will be seen, is round, indented at the apex, and has a deep channel running to the stalk; skin deep orange, tinged and mottled with red on the sunny side; flesh orange, red near the stone, soft, melting, and rich, with a sweet pleasant flavour, and highly perfumed; it usually ripens about the end of October or early in November. To Colonel Salway belongs the merit of having introduced this valuable variety. In 1844 he brought stones of the St. Giovanni Peach from Florence. They were sown the same season at his seat, Egham Park, Surrey, and first produced fruit in 1852. The Salway is a perfectly hardy kind, and every fruit grower will do well to add it to his collection.

It is always desirable to extend the season of any variety of fruit to the latest possible period, and generally speaking late kinds of Peaches are more useful than those ripening at an earlier season, more especially if good quality and lateness are combined. We have many varieties of late Pears, Plums, Apples, and Cherries, but the majority of Peaches are either early or of the middle season; very few *late* are really worthy a place in any garden. The two best we have to notice are native seedlings, affording, if such was wanted, another proof of the desirability of raising seedling fruit, with the view of procuring improved varieties of a hardy and healthy class. The principal object we have in view now is merely to notice a few of the *best* late sorts.

The *Walberton Admirable* is a most excellent and splendid fruit, ripening after the Barrington and Chancellor, and about a week before the Late Admirable. It closely resembles the Noblesse in appearance, as well as in texture and quality of the fruit, but it is three weeks later than that fine old variety, a quality which renders it still more valuable. The fruit is large, of a creamy yellow, marked and tinged with red on the exposed side; the flesh is tender, juicy, and of delicious

flavour, and parts freely from the stone. The trees are of healthy and free growth, and not at all subject to mildew. This is an English variety. It was raised from the Noblesse by Mr. Morton, of Walberton, Sussex. A notice of it has already been given in our pages ; but still even now it is not so well known as it deserves to be.

The *Catherine* and *Incomparable* are large showy fruit, and that is their only recommendation. Both are clingstones, and unworthy of cultivation.

The *Late Admirable* is the next best to follow in succession ; it has hitherto been considered the best late Peach, and it still retains that reputation. The fruit is very large and beautiful in appearance, ripening a trifle later than the Walberton. It is a free stone, but the flesh is coarse and stringy ; nevertheless, it is still the best of its season. The trees are hardy, and of exceedingly strong and healthy habit.

Pool's Late Yellow, an introduction from America by Mr. Rivers, of Sawbridgeworth, is also a rich-flavoured melting Peach, ripening about the same time as the Salway. We hope to give additional particulars of this before another season.

Desse and *Ward's Late Peaches* are other valuable late varieties, in Mr. Rivers' collection.

Bourdine do.—This, like the above, is a late Peach. Both it and the *Desse* are melting, free stone kinds, and ripen after the *Late Admirable*.

We are led to hope great things from the attention Mr. Rivers is paying to the importation and raising new seedling Peaches, with the object of increasing the number and improving the quality of very early and very late kinds. Report says, Mr. Rivers has an American Peach, growing to the size of a goodly Melon, and ripening even in Georgia in November. So we may expect Peaches in mid-winter, in tolerable perfection, before very long, if the above is correct.

HARDY TREES IN POTS.

WHEN Mr. Barron, of Elvaston, in his admirable work, "The British Winter Garden," pointed out the folly of planters stocking their grounds with plants which the custom of the trade had kept in pots from a state of seedlings till they were some years old and several feet high, we thought, as the evil and disappointment which are sure to follow the practice were then so clearly pointed out, it would cause the potting system with this class of plants to be abandoned by the trade ; or at any rate that it would not be continued for more than a year or two from the seedling stage, as, under any circumstances, the plants could be transferred to the open ground with safety. We do happen to know some nurserymen who have taken this view of the question, and who have thousands of young Conifers and ever-

greens which formerly were cribbed up in pots until their growth got stunted, and their roots very systematically coiled, which, now planted out, are extending themselves, root and branch, in a most natural and well-to-do manner, not only to their own individual comfort, but doubtless to the lasting satisfaction of those who may hereafter become their possessors. But although this fact informs us that a reformation has taken place in some establishments in this respect, a walk now and then through both metropolitan and provincial nurseries convinces us that the practice of keeping young hardy trees in pots for a much longer time than is either necessary or good for them, is by no means abandoned, but the contrary; and that bedding them out is not resorted to until their roots have become coiled in most cases beyond the power of curing them; for it is well known to all who have paid any attention to the subject, that when young trees have been kept for even a couple of years in pots, they are by that time almost if not quite irretrievably injured; and three years' confinement would render them altogether useless to the planter, by the coiling of their roots. We will go even further, and say that even when the *inclination* to coil has once commenced with the root of a young Conifer, there is great danger that it will continue the spiral form, unless at planting you can manage to stretch out the root, and *secure* it at right angles with the stem. How, then, is the planter to proceed with trees whose roots have become woody and fixed beyond any power of getting them straight, and which leaves him the only alternative of either cutting the coiled roots clean away, or of consigning the plants to the rubbish heap; and unfortunately, those who have planted Coniferæ on an extensive scale will frequently have occasion to exercise their judgment which alternative to adopt. We have ourselves seen scores of young Coniferæ, and some other plants, turned out of pots, where their roots having coiled themselves round the inside of the pots in which they were first placed, had not been disturbed when next shifted, and by the time the plants were three or four years old they were perfectly useless, except you were to disroot them (and all practical men know that the effect of disrooting would be to stunt the plant for a year or more; and also the value of a stunted Conifer); to plant a tree with its roots in the coiled state would be folly; for as the roots thicken by growth they press against each other, and cause the sap vessels to become contracted, and the passage of the sap upwards greatly impeded in consequence; and in course of time, through the increased pressure of one root against the other, this channel of communication between the feeding roots and the head of the tree is incapable of transmitting sap sufficient to maintain the tree in health, and it either becomes a sickly stunted specimen or dies outright. But this is not the only evil, for if we examine the roots of any kind of tree (as we were speaking of Conifers, we will take them as an example) which has sown itself or has been planted with judgment, we shall see how wonderfully adapted the shape and position of the roots are, not only for facilitating the ascent of the sap and distributing it equally throughout the stem, but also for supporting the trunk and head against the violence of the wind; for which ends the roots of trees present contrivances most

admirably adapted to afford the most powerful support at the point where the greatest strain takes place in storms. This fact, as in numberless other instances of creative wisdom and skill evidenced by the growth of trees, should teach Man a lesson, that when rearing young trees for planting in the open ground, where in a great measure they will be beyond his control, and have to take their chances against storms, &c., he should take care not to cripple and render useless those important parts of a plant—on which, indeed, all its future well-doing depends—by following a custom which we believe every sensible mind must concur in considering as one entirely in opposition to the laws of Nature, and which has not one recommendation in its favour.

We have been more forcibly impressed with the facts stated above, by hearing of so many flourishing Conifers having been blown out of the ground this past winter, as well as having suffered in the same way ourselves, from the above causes, that we wish to bring the matter more prominently forward, by way of caution to planters; and we hope that Mr. Barron, to whom belongs the credit of first pointing out the danger, will assist us with his opinion of the experience he has had, in reference to this subject since his work was published, which must have been considerable, from his extensive practice as a planter.

In making these observations, we are very far indeed from blaming the trade for continuing a custom which they are compelled to adopt to please their customers, who frequently will have plants in pots, so that they can plant them at any time; and moreover pot plants are more easily packed, and are supposed to be less liable to suffer when planted than those which have been taken from the open soil. This is altogether a mistake if annual or biennial removal is practised (which should always be the case), and which we know is done regularly in many first-rate nurseries, their proprietors being fully alive to the importance of frequently lifting their trees, so that when sold they may confidently vouch for their not suffering by removal. We do not wish to be invidious, or we could mention nurseries where we would undertake to remove any of their Conifers or evergreens in the middle of summer, without any fear of losing a single plant; and it is well known that by this practice the commercial value of the plants so treated is increased in some cases 50 and 60 per cent.

Purchasers should therefore insist upon all hardy trees having been planted out soon after their seedling state, and frequently removed since. In turning young Conifers out of pots (supposing them to have been potted in single pots, but we should much prefer pricking them out into pans or boxes), it should be insisted upon that the soil is entirely shaken from the roots before planting, and the roots set at liberty; and also that any roots which have a tendency to coil are well cut back, that they may correct themselves as they progress by forming straight roots. Were these simple rules once practised with all our young trees reared in pots, and on which hereafter so much of the beauty and interest of our gardens and parks is to depend, planters would not experience the annoyance and disappointment now too frequently the case, after several years' growth, to find their favourite trees die suddenly, through a contracted circulation, at a most vital part; or

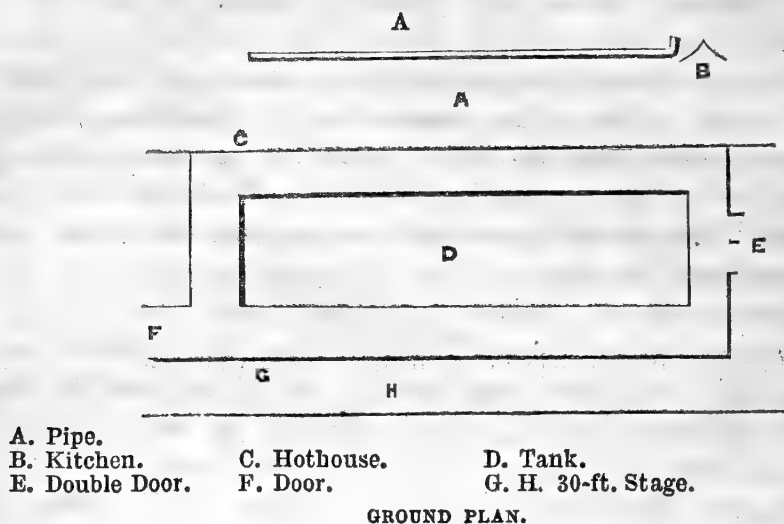
blown out of the ground, through the want of those natural supports which nature has given to all plants, but which man, by treatment in direct opposition to Nature's laws, has perverted, so as to render them useless.

HOMES OF THE FLORIST.—No. III.

CHRIST CHURCH PARSONAGE, DONCASTER.

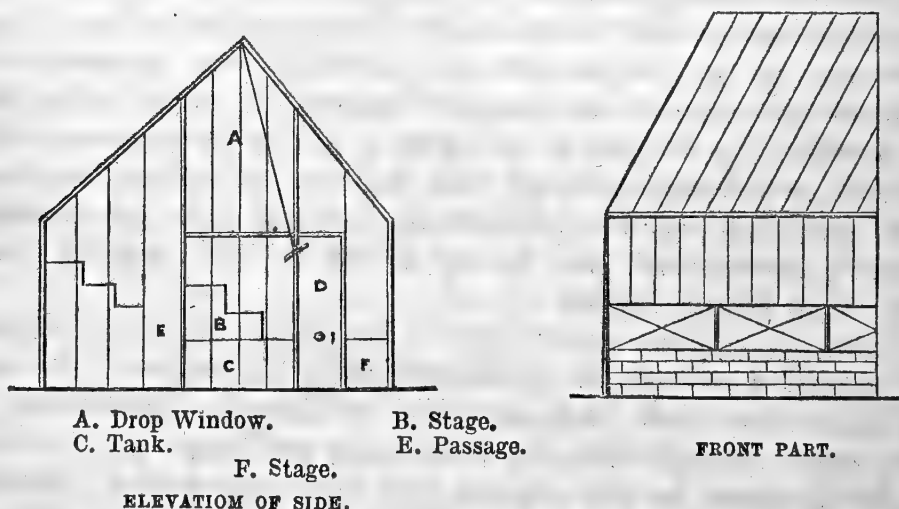
HAVE you ever, kind and fair reader (why are all readers gentle, and kind, and fair? Is it a sort of honied phrase, to take the sting out of some waspishly inclined critic?) been in Doncaster, where is the great and noble church, of which, I fear, it may be said that it divides the homage of the Doncasterians and of the world with its, perhaps, more celebrated race-course—a church of which both Gilbert Scott and the inhabitants may be proud; though the latter are too much inclined to the shout of “Great is St. George, of the Doncasterians!” If you have, you must have noticed that it is a town in which the blacks have as much sway as they have on the banks of the Niger; and that, owing to some peculiarity in the atmosphere, they are continually descending in no very refreshing showers on houses, gardens, and people; you might any hour of the day be accosted, as I was once in town, by a man of whom I asked my way, “I’ll tell you, Sir, in a minute; but—beg your pardon, Sir—there’s a smut on your nose.” Now, to grow anything *well* in such a place might be pronounced an impossibility; and therefore when my friend the Rev. Henry F. Brock, has successfully accomplished this, he deserves quite as much to be regarded as a true florist as any of the most successful originators of new things. I never raised a seedling worth a dump, but I have grown flowers well on top of a bank exposed to the sea, and in a small yard in a town, and think this entitles me much more to be considered a florist, no matter how humble, than anything I did when I had means and appliances of all kinds within reach. But, besides being a florist, Mr. Brock is a mechanician of no mean order; and consequently he has carried out what I consider one of the most—if not the most—perfect greenhouses I have ever seen for a town residence. I have thought that perhaps an account of it might not only be interesting, as showing how skill and perseverance will surmount the greatest difficulties, but also be of service to some similarly situated. His object was to grow Camellias, Azaleas, Roses, and Geraniums, the two latter of which, especially, greatly resent the invasion of the blacks. When I say to *grow* them, I do not mean that he was content to have a few long and miserable looking plants, but to really grow such as would not disgrace an exhibition table, even in the neighbourhood of London. How was this to be done? How were the blacks to be circumvented? The house is a span-roof, about thirty feet long, built on to a portion of the dwelling-house, in which, on the ground floor, is the kitchen. No openings whatever were to be allowed in the roof, which was to be glazed as light as it could be; but in order to give a full circulation of air, the wall on

which the house is built is, to use an Hibernian phrase, no wall *at all at all*, but a series of ventilators, which open underneath the stage all round. Over each door there is also an opening; in one case the



GROUND PLAN.

window falls down, in the other it opens on folding doors, and thin gauze netting inside. By this means the ingress of blacks is tolerably well prevented. The only way in which they can get in is by falling into the gutters, and then being driven up through the laps of the glass; consequently the fewer the laps, the less danger there is of their entrance. In the centre of the house there is a large tank, capable of holding some thousand gallons of water, which it receives from the roof of the house. On the tank the centre stage is erected, and on it I saw as nice a collection of pot Roses as I have ever seen anywhere—symmetrical plants, which would contain about 14 or 15 buds—and with foliage in the most perfect order, not even far away in the country could they possibly have been better; while on the front stages were a large number of well grown plants of Geraniums ready for occupying more room, when the Roses had finished their day of beauty; and these Roses had been preceded by some very fine Camellias. The whole house is heated with hot water, but there is one part of it which



especially deserves consideration. I have said it is built at the back of the kitchen, and this has been made available for the purpose of creating an *imperium in imperio*—a forcing house in a greenhouse. A portion

next the wall of the kitchen has been shut off with glazed shutters, which let down under the floor, and a pipe has been brought from the kitchen boiler through this glazed enclosure, which is again partitioned off into two divisions—on one side there is a small propagating house, for either cuttings or seed sowing; here I saw everything in a healthy state, seeds rapidly germinating and cuttings struck in a very few days after being put in; while on the other were the Camellias, making the most luxuriant growth possible, and rejoicing in constant syringing, and consequently in that nice moist heat which so facilitates their growth. Nor is this all. My friend knows how to combine the *utile* with the *dulce*. Underneath the stage of this hothouse, far away out of sight, and in the dark, of course, he has his Rhubarb, and from the few plants there he has been pulling since Christmas-day (the Linnæus he finds the earliest of all); and what particularly struck me was the very fine colour—quite a bright scarlet; and assuredly no one of taste could tolerate out-of-doors Rhubarb who has eaten the forced.

Now when one considers that a great portion of this work is done without any extra expense, or if any, by only putting a few coals on the kitchen fire when going to bed, my friend may be said to have accomplished a great deal. The ingenuity, too, of his contrivances struck me; thus the tank is only brick, lined with cement. He was told the lateral pressure of so much water would burst it, and that it was labour in vain. But no; he knew better. And so, at an expense only of 30s. he has a never-failing supply of soft water, and at a temperature nearly equal to that of the house; and then there is a smaller cistern, which receives the over-supply, from whence he takes the water simply by dipping the flower-pot; while under the stage he has a place to put the syringe in, and take what he wants direct—all to save time, of which (being the zealous and devoted pastor of a large parish) he has not an overstock; then again, shut up as he is within stone walls, he found that by simply erecting a temporary front stage his Geraniums would get the sun three weeks earlier than they would have done on their ordinary stage; and so one is put up immediately. Then in the north house he has a very pretty Fernery, with a little cascade, and some of our rarer English Ferns growing well on the pretty rockwork. In his potting shed, too, I noticed that the centre of the potting table is cut out, and fastened underneath, so that when the old stuff accumulates, instead of sweeping it off, he knocks down his little trap-door, and down the mould falls into the rubbish-box underneath. He is, moreover, a grower of Auriculas, but they have not benefited by the smoky atmosphere, and by my advice he will transfer them, I think, to his kitchen garden.

I have thus endeavoured to give a description of what I consider a very successful example of gardening under difficulties. The accompanying sketches will perhaps make my bungling descriptions more clear; and I can only say, that should any gentlemen wish to follow in Mr. Brock's steps, he will not only give them any further information, but also will be very glad to show them his house, if they will venture so far north; and this I will undertake to say, they will find him to be a true florist, liberal-minded, and willing in any way to help on the craft.

D.

THE SIX OF SPADES.

CHAPTER IV.

I REMEMBER that, when we first formed our floral brotherhood, I introduced the name of Joseph Grundy with some anxiety, lest it should not be welcomed as I wished. I was afraid that his occasional wanderings from the garden in the direction of the stable-yard, the sudden transfer of his attentions from his Horseradish to his horse, and again from his cob to his Cobnuts, might disqualify him from becoming a member of our little guild of gardeners. These noses, I reasoned, accustomed as they are to Orange-blossoms, will inevitably turn up at the mere notion of a groom with straw at his boots. But those noses did nothing of the kind. My nomination was received with hearty approval. "If he is not too much engaged," said Mr. Oldacres with a quaint gravity, "in laying out the new grounds at Kensington, or in reviewing 'Darwin on Species,' let us have him by all means. Seriously, I am glad to second this candidate. While we teach him something about gardening, we cannot fail to profit in turn from the presence among us of an industrious, an honest, a righteous man."

To these commendatory epithets, I would append the adjective *cheery*, as characteristic of one who is not only happy himself, but communicative of happiness to others. I never meet that Fourteen Stone of healthfulness, crowned with its rosy smiling face, as bright as a good conscience and brown soap can make it, without feeling a certain freshness at heart—a braver confidence in the hopes and joys of life—a more sure emancipation from its cares and sorrows. Like the "bit of blue," which precedes the sunshine when the storm-clouds break, that face beams with fine weather. Here is a delightful barometer, which disdains the influence of atmosphere, moon, and wind, and boldly assures you in the middle of a hurricane, that everything is "set fair." It is a face at which babies of the most reserved and haughty disposition immediately smile and coo; while the most timid children "walk under his huge legs and peep about, to find themselves dishonourable" lollipops. Coming quickly round a corner, upon a recent occasion, I suddenly confronted Mr. Grundy, engaged in the arduous evolutions of hopscotch, and his expression of bashful uncertainty whether he should resume his position as a rational biped, or go on with the game and win it, was a supreme treat, I can assure you. Finally, he got upon the line—I wonder with those boots of his that he was ever off of it—and resumed his original standing in society, amid the derisive cheers of his small competitors.

You would scarcely imagine that this festive countenance could ever be regarded with a qualified pleasure, nay even with feelings of discomfort; but there are scenes and seasons wherein I have met it with much perturbation of spirit. I maintain that upon occasions of national humiliation, upon Ash-Wednesday, and other days of penitence, Joseph Grundy ought to sit in the vestry. No member of our congregation is more in earnest than he; but his face utterly declines to

identify itself with any internal seriousness, and glows in its amazing joy and radiance, as though protesting against the whole proceeding, and contradicting every word of the service.

And was not that same hilarious visage a sore trial and stumbling-block, when, in days that are past and a gallery that is pulled down, Joseph Grundy performed on the bassoon? He was but poor company as a musician, was Joe, but thoroughly conscientious; and though I never knew him to finish with the choir, he always played out his verse honourably, and came in a few notes behind, blown, but extremely gratified. We have an harmonium now, and the bold bassoonist sings, and sings well, in the choir. Drowsy indeed must that believer be who does not start in his bed upon Christmas morn, when Grundy, lustily and with a good courage, bids his brother "Christians, awake!"

Lustily, and with a good courage, is his rule in all things. It does one good to see him at his work, and I think of the American's striking words, of "the nobility of labour, the long pedigree of toil," as I watch him, manfully accepting that irksome destiny, which the first gardener hath entailed upon us all. A right honest Spade is Joseph. His no "lubbard labour," of which Cowper, in "The Garden," speaks as "loitering lazily, if not o'erseen." If you come upon him when he is resting awhile, he does not hastily resume his labours, and so confess that he has been idle, and does not deserve relaxation (I always distrust those demonstrative gentlemen who are so excessively energetic when their employer is present), but he stands at ease until he feels himself refreshed, and then plies his spade once more, with a determination and energy which induce the idea that he has solemnly pledged himself to dig to the Antipodes before tea-time. It is good, I say, to watch him at his work, for "*laborare est orare*," work is prayer, is as true a text this day as when it cheered the hearts of those toilsome monks, who were long the only, and always the best, gardeners.

So we, having seen Joe Grundy dig, were glad to admit him into our Society of Spades. He is not scientific, it is true. I recall mistakes in his nomenclature of plants, discreditable to his etymology. I have heard him speak, for instance, of *Yallermadies*, *Cameleons*, *Dolphiniums*, and the like. I know that in spelling Cactus he leads off with the letter K.; and I am quite sure that he could no more repeat some of the delightful titles which are given to flowers (let me mention, by way of a nice little specimen, *Siphocampylos Manetticeflorus*) than an Ephraimite could say Shibboleth. But there is a nobler language, my friends, than is to be found in Botanical Dictionaries, grand words of Truth, Goodwill, and Honesty; and these Joseph Grundy speaks. There is a higher task appointed than the precise orthography of tallies, that we "learn to labour and to wait;" and he studies this lesson well.

In his little intervals of leisure, the semibreve rests of his solo on the spade, during which, to quote his own expression, he is engaged in "catching his wind," he is wont to survey with much contentment the pleasant garden around him. It freshens him, he says, to have a peep at the flowers, and to see things looking comfortable and happy, as though they thanked him for his trouble; and, indeed, to look upon that smiling pleasaunce is a "refreshment to the spirit of man." It is laid

out much as gardens were a quarter of a century ago. Large beds, round or oval principally, with flowering trees in the centre, the Lilac, the Acacia, the Laburnum, the Almond, and their kind ; next to these, the glossy evergreens, the Arbutus, the Aucuba, the Box, the Berberis, the Juniper, Holly, and Yew ; and outwardly the border for flowers. " And gravel walks there for meditation," meander about these beds in tortuous course, conducting you to sweet little spots of coolness and seclusion, and giving you a continual change of objects for contemplation. I never wander in those charming grounds, but I ask myself this question—Are we not making a "tremendous sacrifice," (as the drapers say, when they are anxious to dispose of surplus stock, or seedy old 'shopkeepers') to that Gigantic Idol called "Bedding Out?" Are not our modern gardens, and these close to our windows, fireworks and kaleidoscopes for three months in the year, with brown fallows for the remaining nine? Don't talk to me about your "Winter Gardens," your Golden Hollies with eight leaves, your priggish little Irish Yews, about as big as ninepins! To the Nursery, say I, with those tiny infants. And I won't listen to any nonsense about "grand display of bulbs in Spring!" The grand display costs a fortune, and comes up "patchy," after all. I looked out the other morning from the window of a grand house in these parts, where they have streets of glass and regiments of gardeners, upon a magnanimous but unhappy experiment to beautify the beds with bulbs. There were to be Maltese crosses in silver, and golden coronets upon cushions of purple. The idea was gorgeous, but the result was this—I could scarcely shave for laughing! Oh, the gaps and the blanks, the *hiatus valde deflendi*! Puritanical mice had defaced the crosses, and appropriated the Crown Jewels.

Surely it is better for mind and body to feed regularly upon wholesome food, upon the meats and fruits of the earth in their season, than to have three months of feasting, and nine of fast. At the Grange there is always something, close at hand not exiled to the kitchen garden, to please you.

"The daughters of the year
One after one through that still garden pass,
Each garlanded with her peculiar flower."

From the cheerful parlour, with its oaken panels and large square stone-mullioned window, I see in winter the Laurestinus, the bright red berries of the Holly, the pale yellow Aconite, the white Christmas Rose. There are Violets under that window, waiting for a sunny gleam, and the room itself is redolent now with the delicate perfume of the Chimonanthus fragrans. Soon they will have in abundance the Snow-drop (our Lady's flower)—the Crocus, purple, and gold, and white (the latter irreverently termed by children "poached eggs," and very like them)—Hepaticas, the sweet Mazereon, and all the first flowers of spring. You "would remove that Ribes, because it must look shabby in the winter!" But don't you see that there are too many evergreens around it to allow the eye to rest upon it, much less to be offended by it; and it is so with all the deciduous trees.

"And we seem," said Miss Susan to me (two maiden sisters live at the Grange, Miss Susan and Miss Mary Johnstone, so sweet tempered,

and good and graceful, that I often wish they were 20 years younger, and bigamy more in favour), "we seem to have all the happiness of a garden, without those little vexations and disappointments which trouble some of our neighbours. We ought to be very thankful;" and I know that she is thankful, though she neither groans, nor squints at the firmament, and in fact does not care what I think on the subject; "for our home is not only lovely in our own eyes, but seems to endear itself to our friends also. Even strangers are struck at once with the greenness and quietness of our 'fair ground.' Our good Duke, lunching here in September—it is only in the partridge season that we have the privilege of a visit—looked around, and sighed to himself, 'How very, very peaceful!' He was comparing our pretty little plot, I fancy, with his grand terraces, and his geometrical designs, his rain-bows, his ribbons, and his stars, and I verily believe that he preferred the former. Indeed, he confessed as much, by quoting two lines of poetry, which we afterwards found in a translation by Mr. Pope from Martial:—

"But simple Nature's hand with nobler grace
Diffuses artless beauties o'er the place."

And dear Mr. Oldacres, the first time he smoked a pipe in the new arbour, seemed to arrive at a similar conclusion. 'Prettier than anything we've got,' he grunted; 'If a man wants to know what a fool he is, let him go and lay out a garden!'

"And it is a comfort to feel that our old-fashioned style evokes neither jealousies nor comparisons from your anxious modern competitors. If the spirit of any young gardener is troubled at the sight of some to him unknown novelty, and envy with malignant glare is eyeing it, as Greedy Dick the tartlets and pies, he is at once appeased to hear that it has been with us half a century, and is only annoyed with himself for admiring anything so superannuated. No one points out, with lively satisfaction to himself, those 'sad mistakes in arrangement of colours,' which your great artists are as prompt to see in others as they are to overlook in their own parterres. We are never told that our favourite plants are 'quite superseded, and gone out of cultivation some years since!' And nobody sneers at our boiler, for the simple reason that we have no greenhouse." Ah! I must tell you what dear Mary said (Miss Susan, you must know, looks upon Miss Mary as a combination of Sydney Smith and Venus), when Joseph expressed a wish, the other day, that we would set up what he called 'a bit of a Consartive-Tory.' 'Joseph,' she said, "so far as I am concerned, I feel more disposed, as I'm losing my hair, to set up a bit of a *Wig*!"

"Apropos of Grundy, what *do* you think that delightful elephant did last evening. We had a few friends to dine with us, and it unfortunately devolved upon Joseph to place a pyramid of jelly upon the table. Carried unsteadily, it commenced of course a series of the liveliest oscillations, and so swayed itself to and fro, when it reached its destination, that poor Joseph called to it in real agony of mind, 'Who-a, who-a, who-a!' I need not tell you that he concluded the performance by hissing violently, when he swept away the crumbs, as though manipulating his horse, for that, you know, he always does."

S. R. H.

SOILS, FRUITS, AND MANURES.

(Continued from page 70.)

BEFORE noticing the new red-sand I should have mentioned the oolitic loams as the next in descending order, had it not been for the greater importance of the red-sandstone formation. The loams which cover the oolitic rocks vary much in composition and quality; for instance, those of the Cotswolds are poor in composition, and contain too much lime. The same may be said in respect to the great oolite beds. The cornbrash loams, though forming a good corn soil, are not very favourable for fruit trees, though we have seen some good orchards in Gloucestershire and Somerset on these measures, where the soil has been more than usually deep. There are, however, some good soils on the coral rag, a marly calcareous soil, which occupies a narrow strip in the series, and which, when not too retentive, forms a valuable soil for fruit trees, the Peach and Apricot especially. The clay valleys which separate the main divisions of the oolitic beds are more celebrated for growing Oaks than Apples, though there are many fine orchards in Wilts, Bucks, and Dorsetshire, on the Oxford and Kimmeridge clay, which, with care as to drainage, may be made to grow fruit trees in perfection.

The large area which the new red-sandstone covers in the midland counties in England will account for the number of the seats of the nobility and gentry which exist on this formation, and the many first-rate gardens which belong to them, in some of which have been produced the finest fruits of which Britain could boast. There are some fine orchards on the new red in Gloucestershire and Warwickshire; but we must look to the old red-sandstone for the most favourable orchard soils; before noticing which, however, we must not overlook the lias, an important fruit tree soil, more particularly when the natural configuration of the land admits of quick drainage, and the subsoil is favourable. Some of the lias loams are excellent for fruit growing, especially when they contain a certain per centage of fine drift, or overly a dry bed. There are some fine orchards on the lias round Bath and Cheltenham, and the beautiful and fertile valley of Evesham, in Worcestershire (so well known as to require no comment), is entirely on the lias. In reference to the fruit producing qualities of Evesham Vale, we may observe that orchards and vineyards are among the items spoken of as belonging to the abbey of Evesham at the time of the Conquest; and the great number of orchards and fruit-gardens now in cultivation in the Vale is proof conclusive that the lias, under certain conditions, is a favourable fruit tree soil. Our readers may also remember a beautiful collection of Apples, exhibited by Mr. Wm. Ingram, of Belvoir Castle, in Leicestershire, from trees growing on the lias, at one of the Horticultural Society's exhibitions, a few years back, as affording additional proof of the fitness of the lias for orchard fruits.

The old red-sandstone formation, as it occurs in Herefordshire and some parts of Devon, must be regarded as the first orchard soil in Britain. The principal fruit tree soils of Scotland also belong to the

old red-sandstone. The best orchards in Herefordshire are planted on deep red loams formed by the decomposition of the cornstone and marls, which result in producing a soil of great richness and retentive properties, and which, taken altogether, is perhaps the richest soil in the island. The turf of the rich Herefordshire pastures, when cut and left for a short time to decay, forms most excellent fruit-tree borders, but too rich for the Peach and Apricot, unless mixed freely with old lime rubbish or road sweepings. The old red-sandstone of Somerset and Devon, though containing large tracts of rich pastures and orchard soils, is more generally mixed with sand and shales than in Herefordshire; neither is the soil so deep or permanently productive. Yet we find some good orchards both in Devon and Somerset, but the more natural moisture of the climate induces the growth of moss and lichens on the trees, and they rarely appear so vigorous as in Herefordshire, and we believe are not so long-lived. In Scotland, on the contrary, where the climate can hardly be considered so favourable, good orchards are to be seen, and equally fine fruit grown, as in the best districts of England, on this formation, which includes some of the richest *carse* soils.

The quality of the loams met with on the mountain limestone is good, though their extent is limited; considerable districts in Northumberland, Yorkshire, and some portions of Derbyshire belong to the mountain limestone, and produce excellent fruit tree soils, where there is sufficient depth; but owing to their occupying elevated tracts, the climate is generally cold and unfavourable for fruit culture. The same remarks apply to the slate rocks of Cumberland and North Wales; in the valleys are found rich loams, fit for growing fruits in perfection, but the climate does not admit of fruit culture to any great extent being carried out, which remark applies also to the clay slates and granite of West Devon and Cornwall, on which we have seen a few healthy vigorous orchards, on the decomposed shales and granite, and plenty of individual trees healthy and productive. The loams belonging to the granite and killas rocks abound in potash and aluminous matter, liberated by the decomposition of the felspar and mica (component parts of granite), and are otherwise rich in inorganic substances. We have noticed that most kinds of fruit trees thrive in these soils, which are capable of producing fruit in abundance, where properly managed. In the extreme west of Cornwall the Peach grows well, whenever loam with a sufficient staple can be obtained for borders, as do the Pear, Apple and Plum (in some places) luxuriantly; but the climate is too damp to ripen the Peach wood sufficiently to induce certain crops, and the trees soon exhaust themselves.

The brief sketch which we have given of the principal fruit tree soils of Britain, imperfect as it must necessarily be, has occupied a much greater space than we intended. Our idea was to give a general description of the different classes of soils, as met with, for the guidance of cultivators; and by naming the geological strata, we look forward to the day when, through the exertions of the two London fruit societies, more correct data on this head will be obtained, so that the influence

of certain soils on the peculiarity of fruit trees may become better understood; in fact, that our skeleton sketch may get filled in with the details necessary to make it complete. We have said nothing of the Wealden sands and clays, nor yet of the lower and upper green sands, neither of which are by themselves very important fruit soils; but when the gault clay (which separates the upper and lower beds) is mixed with the upper green sand, a soil of great fertility is formed, on which orchards abound in Kent, Surrey, and other places. This mixture forms also the celebrated Hop grounds of Surrey and Kent, and the rich corn district of the Pewsey Vale, in Wilts. The peculiar richness of these beds is owing in a great measure to the presence of phosphate of lime, derived from the remains of extinct animals, &c.; the slow decomposition of which, as it is exposed to the atmosphere, adds to the soil one great element of its fertility.

Our notice of manures, to conclude the series, must appear in next number.

EFFECTS OF THE WINTER IN STAFFORDSHIRE.

As last summer was unusually dry, many vegetables, &c., made but little progress until the autumn rains, so that they were in full vigour when the severe frost came in October. I never saw such destruction in a single night among tender, half-hardy, and even hardy plants. It made a clean sweep of Lettuce, Endive, and Cauliflower; and so far weakened the Broccoli, Cabbage, and other green vegetables, that the severe frosts in November and December finished any that were left; old and young plants of Cabbage, Broccoli, Savoy, and even all the varieties of Kale perished; Brussels Sprouts only have escaped; Celery and Cardoons were frozen through; Globe Artichokes, although protected with straw, appear dead; all the strong growing Parsley, from early sowings, and which had been pricked out, was killed, root and leaves—that which escaped was some plain-leaved, under an east wall, and some sown thick in poor ground at the end of July; many of the young shoots of Figs were killed with the first frost, as the foliage was then on (in fact, ripe Figs at the same time), all the young fruit was so much damaged that I expect we shall miss our usual supply of early out-door Figs, which are far superior to the late ones (we cover the trees with straw as soon as the leaves are off). This winter will thoroughly prove which of the trees and shrubs are hardy, and which are only supposed to be so.

Wellingtonias are not injured in any situation; *Cedrus Deodara* and *atlantica* have escaped, as have also *Cephalotaxus*, *Thujopsis borealis*, *Thuja Lobbi* and *gigantea*; *Cupressus Lawsoniana* is not hurt, while *Cupressus Goveniana* and *Lambertiana* are very much browned; some *Cryptomerias* have escaped, while small plants, and one 10 feet high, which was growing very strong late in autumn, and exposed to the north-east wind, had almost all the young wood killed; *Araucarias* have escaped, except one fully exposed to the north-east, a little brown on the tips of shoots; *Pinus insignis* has suffered most of all—in fact,

in a new plantation on a very exposed situation they are killed to the ground—in sheltered places, young plants have last season's growth killed, and plants of 20 to 30 feet high have not been hurt at all: *Magnolia conspicua* and *acuminata* had the points of the shoots killed, and *grandiflora*, tops of many shoots dead, and foliage very much browned.

I am afraid that many Roses are past recovery; Bourbon Queen, Souvenir de Malmaison, and General Jacqueminot, have suffered most, and the common China has many of its shoots dead. The flowers and many of the shoots of the *Laurestinus* are gone, while the Sweet Bay is quite cut up. The late growth of Holly, especially on clipped hedges, which, from the growing weather in September, had made another growth, was killed by the October frost. We are now, the 10th of March, with 8° of frost; yesterday we had 12°, and the ground covered with snow. Not a blade of Grass, the Snowdrops are but just in flower, and a few early Crocuses beginning to peep. Altogether it is the most severe and long winter I ever recollect, so that we must hope for a favourable spring.

DELTA.

GRAPES IN THE OPEN AIR.

“GRAPES, Ah! they are luxuries that are only to be obtained by the rich in this country, or at best by those who can afford to erect glass structures; but for us, who can only afford to build walls, we must say of the Grape, as the Fox did, ‘They are sour things to us.’ I have asked many practical men why the Grape will not do out-of-doors with us; and their invariable answer has been, that our climate is not warm enough, or that our summers are too short. I cannot afford to erect glass structures, therefore the luxury of the luscious Grape I must forego.” The above being a very generally endorsed opinion, a few remarks upon this subject will not, I trust, be out of place.

Grapes out-of-doors! Why not? Surely, what can be effectually done in the West Riding of Yorkshire may be equally well achieved in the more southern counties; but first of all, let us consider the time required to bring the Grape to perfection out-of-doors. In the Grape growing districts of France, the Vines begin to grow about the middle of March, and the fruit is ripe about the end of September or beginning of October; and as the mean temperature of March and April in France is somewhere about 8° above what it is in this country, and September and October will be about 10° above us, we therefore plainly see that our summers are not long enough for the cultivation of the Grape naturally—hot enough they undoubtedly are as long as they last; we must therefore employ artificial means to obtain these results. In the gardens of George Lane Fox, Esq., Bramham Park, Tadcaster, are annually grown, ripened, and magnificently coloured, upon *flued walls*, as fine Black Hamburgs as any one could wish to see (see page 26 in vol. for 1857). There is also another place in that neigh-

bourhood where the same results are obtained. We see here that a flued wall is quite sufficient to counteract the shortness of our seasons in the unfavourable climate of Yorkshire; and as flued walls are as easily and as cheaply built as solid ones, why, for all horticultural purposes, should they not be more generally erected? There can, therefore, be no doubt that excellent Grapes may be obtained in most seasons without the aid of glass. Of course fire-heat will be required at night, and cold days, during the months of March, April, and May, to start the Vines into early growth, and also in September and October, to ripen up the fruit and wood; and as to the cost of heating, it would be a mere trifle, as anything could be burned here; the prunings and rubbish of almost any kind will be found to answer the purpose. A projecting coping will be found necessary to prevent the too rapid radiation of heat in the earlier stages of growth; and a warm, dry border is indispensable, which should be covered during the winter months with some materials to protect the roots from heavy, cold winter rains, which may be accomplished in many ways—wooden shutters, straw mats, asphalte, tarpaulin, &c. &c. This should be accomplished before the cold, drenching rains of autumn set in; and a coat of fermenting material applied about the beginning of March will be found to greatly facilitate the rising of the sap. Keeping the shoots thin and closely nailed to the walls (which, by the way, would undoubtedly be improved by being *blackened over*), and all lateral shoots closely stopped in, are the principal points to be attended to. The south and south-western aspects will undoubtedly be found to answer best. There are many sorts of Grape that will be found to ripen well out of doors; but who would plant the small, inferior sorts, when the Black Hamburgh can be obtained for about the same amount of trouble? The following sorts will, however, be found to comprise some of the more hardy for out-door cultivation; those marked with an asterisk will be found the most select.

BLACK SORTS.

*Hamburgh
 *Early Black Muscat
 Purple Fontainebleau
 *Esperione
 Miller's Burgundy

WHITE SORTS.

*Sweetwater
 *Early Summer Muscat
 „ Malingre
 *Muscat St. Laurent
 Royal Muscadine

A.

ROYAL BOTANIC SOCIETY.

MARCH 21st.—If, to gladden the eyes of their members with a “petite” exhibition so early in the season, have entitled the managing body of this Society to the thanks of the public, how much more so, in such a season as this, when frost has succeeded wet, and wet frost, for so long, that gardeners almost begin to despair as to whether spring is ever to come; and this exhibition, small though it was, shews how English gardening triumphs over all difficulties, and can bring together its treasures, despite of all adverse influences of wind and weather.

We must, however, put in an exception ; it cannot, at its will, have out-of-doors shows, though the indefatigable Curator, Mr. Marnock, essayed that on this occasion. The plants intended for show were ranged in a tent erected to the leeward of the large conservatory, the intention having been to keep them there, and leave the conservatory with the Society's own plants in it, so as to give greater facilities for the passage of crinoline (surely it is a mistake to say this is going out, unless it means *going out* into larger amplifications); but alas! the best intentions are doomed to disappointment, for such a gale of wind and rain arose, that the staff of gardeners was hastily summoned to bring the exhibition flowers into the conservatory, as serious damage, not only to the plants, but even to the conservatory itself, was apprehended. This did not either improve the plants, or make access to them more easy ; but still they were very beautiful, and one could see that it made gardeners and amateurs look quite "perky." It's very amusing to hear young ladies affecting to be up to everything, and young swells declaring "I know nothing about *botany*." Well, but to the flowers. There were some fine specimens of Orchids from the Lord Bishop of Winchester, at Farnham Castle—especially a *Dendrobium Farmerii*. Mr. Henderson, of Pine Apple Place, also contributed a *D. nobile*, and some fine greenhouse plants. There were also some very nice *Ericas* of the *aristata* breed from Mr. Low, were deservedly admired ; "What is more beautiful than a well-grown plant of *aristata major*?" There was also a variegated *Primula* very pretty, some nice varieties of *Azaleas* and *Camellias* ; of the latter, especially, *Mathotiana alba*, equalling the red variety in size and boldness of petal. A Tea-scented Rose, called President, also attracted much attention, though it did not seem to have much novelty in it, and certainly is not superior to *Madame Willermoz* ; but there can be no question that *Hyacinths* and *Cinerarias* were the popular flowers of the day ; of the former, Mr. Cutbush's, of Highgate, were immeasurably superior to any others ; and those in his large pots were the most magnificent flowers possible ; of them, General Havelock (light blue), *tubiflora*, and two whites—*Mont Blanc* (a large pure white), and *Elfrida*, which has an immense pip—were perhaps the most conspicuous. I say, *perhaps*, for it was almost impossible to distinguish excellence where all was good. Of *Cinerarias* there was not a large show, the season being very backward. Six fine plants came from Mr. Smith, the finest of which were *Baroness Rothschild*, *Brilliant*, *Mrs. Hoyle*, and *Capt. Schreiber* ; there was also a single plant of *Flower of Spring* from Mr. Turner, of Slough ; from the latter came some very fine seedlings, four of which received Certificates—*Lurline*, *Mabel*, *Miss Eyles*, and *Royal Charlie* ; and another remarkably fine flower, the *Rev. S. R. Hole*, large (as it ought to be) and bright like *Brilliant*, only twice the size (why did it not receive a Certificate?) Mr. Smith had also some very good ones, the best was *Géant des Batailles*, a brilliant self. The Society's own plants were exceedingly good ; their *Azaleas* being in full bloom, and the *Norfolk Island Pines* looked remarkably fine. May I ask (without being considered impertinent) why they offer prizes for *Aurículas* on the 21st of March? Anyone who grows the plant could have told them it is out of the question ;

you cannot *force* an Auricula, and to have them in by March would be ruin to them. The day was, I have said, indifferent; but it was agreeable to get inside—see the flowers, and chat with old and new friends; and, despite of Kensington Gore looming in the distance, I do hope prosperity will still attend the Royal Botanic Society.

March 21st.

D.

FLOWER GARDEN PLANTS.

As the planting season for the flower garden is fast approaching, we make no apology for submitting the following observations on a subject which we have noticed in our pages before, that of introducing some change and variety into the composition of floral planting.

It so happens that the first class on our list is one, which (although very recently noticed by us we must again recommend) has made great strides of late years, both in brilliancy and variety of colour; and seeing that the family of *Gladiolus*, to which we are now alluding, is one which may be had in bloom from July to November, their importance can hardly be over-estimated, and as such they are now becoming indispensable to the flower gardener. The culture of the *Gladiolus* is fortunately of a very simple character. Any dry loamy or even peaty soil will grow them; dig it up to the depth of 16 or 18 inches, and enrich it with rotten leaves or well decomposed manure. In this the bulbs may be planted at any time between the 1st of April and the end of the month, and, for the latest bloom, up to the second week in May.

The selections for planting should be made from the nurserymen's lists, as we have not space to enumerate the many fine varieties offered for sale in catalogues, and in which the colour, height, and time of blooming, are clearly stated; besides, the purchase of *Gladiolus* is entirely a matter of £ s. d. You may get the older varieties very cheap by the dozen or hundred, and very showy beds these make; but if you can afford it, you may get more brilliant varieties, as *Brenchleyensis*, *Bowieana*, &c., at a reasonable price; and as an advance on these, you may go to named varieties at so much each, or the better class of mixtures per hundred. Our advice therefore is this:—Calculate how many you require, and to what length you can go. Write to a respectable firm, and leave the matter in their hands.

The *Gladiolus*, however, wants some little help by way of filling up between their stems. Various plants recommend themselves for this purpose. Where there is the command of heat, the different varieties of *Canna* or *Indian Shot* are the most suitable; these have large exotic-like leaves (which are all we require), that fill up the space between the stems of the *Gladiolus*, and form altogether a grand mass, adapted either for large or small beds. We have used *Elymus glaucus*, a rather ornamental Grass-like plant, for the same purpose, and various other substitutes may be found. *Gladioli* are exceedingly effective when mixed with low-growing shrubs, where the flower scape will rise above the foliage, or for mixing with herbaceous plants and shrubbery borders; they will require merely the space they are to occupy being well dug up, and a little fresh compost added to worn-out soils.

Tritoma uaria glaucescens and *T. u. serotina*.—These plants cannot be too strongly recommended for a distant effect. They are not so hardy as we thought them to be; and therefore the side suckers should be taken care of as soon as large enough to pot, and kept in cold frames through the winter. We should treat these as other flower garden plants—yearly propagation and planting.

Iris germanica, *I. anglica*, and *I. hispanica*.—A class of plants of the greatest interest. Where variety is wanted, the mixtures comprise every shade of violet, blue, and purple, &c. No garden should be without a bed of each class. They grow freely in any good garden soil, and are cheap enough for all classes to have them.

Alstroemeria chilensis, *hybrids*.—We have grown these for some years, and nothing can exceed the gorgeous display they make for two months or even more. The soil should be dry and sandy, well loosened to the depth of 18 inches. They will remain in the ground for several years by merely covering the beds with a little old tan during winter. Some other varieties are equally hardy and very interesting.

Lilium lancifolium, *var.*—These have now become cheap enough to plant freely. Heavy rains will injure the blooms a little, but notwithstanding they are beautiful objects in September. They will succeed well as single beds, or mixed in clumps or borders of American plants, and require a peaty soil. The roots should be taken up during winter if the soil is at all damp, and the bulbs kept in dry mould.

L. longiflorum and *eximium* are both pure white, 18 inches high, and make beautiful July beds; they will grow in any good garden soil.

L. bulbiferum, *var.*—These make splendid summer beds of the richest orange scarlet, and grow about two feet high.

L. tigrinum.—An old but very useful variety, growing three feet. Beds of these three last kinds might be so arranged, by planting intermediate plants between the Lilies, that when they have done flowering a succession may follow. All the orange-coloured Lilies mix admirably with the varieties of Delphinium, and make the showiest masses conceivable, and as such, should be introduced to every mixed garden, or for large beds on lawns, &c.

Agapanthus umbellatus.—We more frequently see this massed out than other plants we have named. It forms a fine massive bed, unique in point of gracefulness, and the rich blue of the flowers form a great relief to pink, rose-coloured, or white beds.

Oxalis Bowiei makes a beautiful dwarf rose-coloured bed, flowering from August till destroyed by the frost. The bulbs should be planted in May, on a dryish soil, and sunny exposure.

Tigridia Pavonia, *conchiflora*, and *Wheeleri*, are all showy bulbous plants for beds, or for mixing in with herbaceous plants.

Asclepias tuberosa makes a rich orange bed; used to be much more generally grown than now; it is one of the showiest of herbaceous plants.

Delphinium Barlowi, *Hendersoni*, &c., &c.—These are now too well known to require any comment. Nearly all the species are worthy of cultivation. The new varieties are unequalled for producing rich blue colours.

Lobelia fulgens, *grandiflora*, *Queen Victoria*, *St. Clair*, &c.—These

are all very valuable autumn blooming plants, with scarlet or crimson spikes of bloom; they require rich light soil, and plenty of water in dry weather.

Gazania uniflora, *Pavonia*, and *rigens*, rich yellow and orange. A great improvement on the above is *splendens*, a rich orange.

Lythrum roseum superbum.—For a cool damp situation there are few plants more showy than this hardy herbaceous plant. It is a great favourite in some parts of Scotland, and where many other things could not be planted this will grow and bloom freely.

Pentstemons are well known to modern flower gardens. There are several first-rate new kinds from the Continent, which should be procured.

Phlox.—The same remark applies to this family, which consists of the most really useful tribe of herbaceous plants our gardens contain.

Bouvardia longiflora, *oriana*, &c.—The former is one of the sweetest plants we know, with dark glossy foliage, and flowers of the purest white; with care these will make neat and unique beds.

Scutellaria splendens makes a very showy bed.

Veronica Andersonii, &c.—This makes a beautiful autumn bed, and is a fine plant for mixing with shrubs.

Dianthus Heddewigi and *laciniatus*.—Every one will have beds of these superb plants.

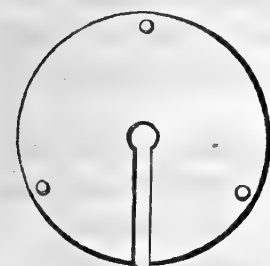
Pyrethrum, *hybrids*.—There is an immense improvement in this class for bedding purposes. Seeds should be procured at once, if intended to grow them this season.

AURICULA SHOW, &c.

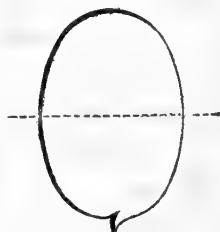
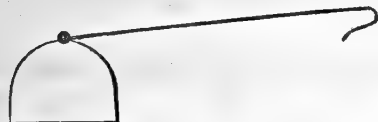
I AM very much afraid that the difficulties in the way of a grand national Auricula show are insuperable, at least for the present. It is not only that there are very few growers, and these few scattered widely apart, making it difficult to fix a place of meeting convenient to the majority, but Dame Nature has to be consulted, and her consent obtained, in order to retard the south, and advance the north country plants, so as to bring them into bloom tolerably well at the same time. And who has so much influence with that respectable old lady as to cause her to alter her usual course of proceeding so far as to bring Falkirk and Slough or Deal together, I cannot say; but beg to appoint Messrs. "D.," "A. J. C.," and C. Turner for the south; and Messrs. Lightbody, Cunninghame, and Campbell for the north, as a committee to arrange matters with the aforesaid lady, if they can! The "black spot" complained of by "D." attacked my collection the last two years that I possessed one (alas!). I treated it as mildew, and dusted it with flowers of sulphur, and did not find it injure the plants at all seriously. I quite agree with "D." as to contrast of colour and match in size between the plants when shown in pairs, but am inclined to vote for five pips as a minimum, instead of seven.

For separating the pips when growing, to allow of a proper expansion of each, and regulating the shape of the truss, cotton wool *may* do, but it is not neat, and interferes with the *meal* on those plants which

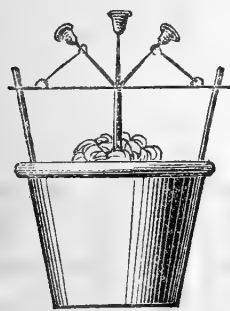
produce it, causing a smeary look when the cotton is withdrawn. I can recommend the following as a better and not at all more troublesome operation. Take a sheet of pasteboard, one-eighth of an inch thick; or, better still, some sheet zinc, and cut out as many rounds about 6 inches in diameter as you require. Bore a hole in the centre, and cut a groove from thence to the edge, large enough to admit the stem of the truss. Make three more holes at equal distances on the edge of the round, about a quarter of an inch wide, to fit the tops of three pegs or sticks, which are to be stuck in the soil round the pot, to support the round as a table. Adjust this to the proper height, so as to come about as high as the bottom of the footstalks of the pips. Then take a quantity of pistol bullets, No. 32. Give them a



rap with a hammer on two sides, to "flatten their poles," and with a sharp chisel cut them in half. Cut a notch in the round top of each half, into which insert the end of a piece of thin copper wire, about $2\frac{1}{4}$ inches long; with a tap of the hammer fasten it to the half bullet; make a small hook at the other end of the wire, and the whole apparatus is complete.



Having arranged the table on the three sticks, at the proper height, and placed the truss in the central hole, take one of the hooks, and place it round the stem of a pip, close to the calyx, and draw it as far apart from the others as you wish, and place the half bullet on the table. If heavy enough, this will retain the pip where you wish it until it grows to the position required. When fully expanded, remove the bullet hooks and table, and your truss is complete. It may sound more troublesome than the cotton wool, but it is far less so. *Crede experto.*



Section.

Φ

THE GENTIAN.

COLERIDGE (says Lady Wilkinson in "Weeds and Wild Flowers") has used, with happy observation, the effect produced by the heaven-like blue of the little Gentian amidst the grander components of such Alpine scenery as he describes; and elsewhere we find:—

"Ye living flowers that skirt eternal frost;"

—words which are, in the strictest sense, literally true. For in no part of the world does the bright blue Gentian smile so brightly as on the verge of the snow-line in our frozen Arctic regions, or, in the chilly Terra del Fuego; where the mountain crest that slept, but yesterday, shrouded in its mantle of snow, feels to-day the glad influence of the gentler spring; where the same ray that dissolves the snow of winter

calls into life a thousand blossoms, dwarfed indeed, and nestling closely to the earth in which they so lately rested, yet bright-eyed, and clear-coloured, beyond anything ever witnessed in more favoured climes. There is an inexplicable charm in this

“Spring of the northern land.
It warms not there by slow degrees,
With changeful pulse, and uncertain breeze:
But sudden on the wondering sight
Bursts forth the beam of living light,
And instant verdure springs around,
And magic flowers bedeck the ground.”

The old English name of Fel-wort, which the Gentian is called, evidently takes its name from the bitterness of the whole plant; though with an etymological zeal strongly pervading our ideas, we might, perhaps, be tempted to derive it from *fel*, a hill; so peculiarly is the Gentian a mountain plant. But, in the words of the poet:—

“Why so far excursive, when at hand?”

For we here have the simpler, and without doubt, the truer signification. Bitterness is the characteristic of the whole plant, and, indeed, of the whole family—a resinous bitter, highly increased in Arctic and Antarctic climes, which also give so large a size, and so bright a hue to the blossoms of the Gentian. This bitterness points out its valuable tonic properties; and we are not surprised to find that not only is the Gentian an antiseptic, arresting animal decay, but also that it is a tonic of very valuable quality.

Foremost in the list of beauty displayed by our English Gentians must stand the glorious azure-lipped Gentianella (*G. acaulis*), so well known in our gardens, but whose claims to be indigenous rest on a somewhat dubious footing. Such, at least, is the general opinion on the subject; but I think that if it be candidly and carefully examined, the claim will be found to hold good. Or, if it be not admitted, a very large proportion of plants must be expunged from our Floras.

Scarcely less beautiful, and, if possible, even brighter, is the exquisite little Snow Gentian (*G. nivalis*), which compensates, by the dense and moss-like tufts of its blossoms, for its inferiority in point of size to the Gentianella. It grows, as its name implies, on our loftiest mountain ranges, as Ben Lawers, and Snowdon, but it is far better known as a native of the Alps and Pyrenees, than of our land.

Our remaining blue Gentian is the Marsh Gentian, or, the so-called Calathian Violet, which is quite different in character from the others. Its flower-stalks grow to a height of six, ten, or even fourteen inches, and are branched, and spiked with many blossoms, faintly, *very faintly*, reminding us of some species of Campanula, though a certain rigidity in the outline, the *twisted* and somewhat spiral markings of its many foldings, and the beautiful green tinting displayed on the exterior of its throat, serve to distinguish it, even at a distance. Unlike the two last-named species, the Marsh Gentian is found in many accessible localities, abounding in certain districts in moist meadow land; as, for instance, in Norfolk, Lancashire, Cheshire, &c.

Our other Gentians are purple; and, though beautiful little plants,

have not that brilliancy of hue which gives so glorious an effect to those before mentioned. They are the little Field Gentian (*G. campestris*), which occurs sparingly on mountainous pastures in Western Britain, and which is, at first sight, with difficulty distinguished from the autumnal Gentian (*G. amarella*), though a difference, well-defined and constant, is presented in the form of the calyx, which, in the *G. amarella*, has its segments equal, while the *G. campestris* has the two outer segments, which are flat and upright, twice as broad as those between them. The *G. amarella* loves calcareous soils; and both these plants frequently exhibit flowers which are more or less double; a sort of deformity produced where the plants have been grazed down by sheep or other animals.

SION HOUSE.

THE gardens belonging to this fine Ducal residence are, I am happy to say, undergoing an entire change for the better. Progress and improvement are here at present the order of the day. Those who knew Sion House 25 years ago, and had a knowledge of the more than princely fortune spent in iron, glass, and bricks, leaving out of the question labour, plants, &c. : and are acquainted with how prominently it stood above all other gardens, must have been ready to drop a tear to see the state to which it has lately been reduced. Now, however, a hopeful day has dawned on that still fine establishment. The right man has got into the right place, and he begins at the right end. The Peach borders have been made anew, splendid trees planted, and great alterations are effected out-doors and in. On entering the early Vinery, a low lean-to, I found as fine a crop of Grapes as could possibly be desired, in 8-sized pots, on a raised stage, in a very forward state. The next object of interest was the Fig-house, in which was a most remarkable crop, on trees trained up the back wall, and turned down from the top, filling every possible inch of space with fruit. The Peach-house also looked promising, but the trees are very old. The Strawberry houses were also satisfactory. Tropical fruit trees, for which Sion is remarkable, are healthy; but I could discover no fruit worth speaking of, except on Bananas, which bear freely; and during the many years the Mangosteen has been in cultivation, it has only borne fruit once.

Camellias, of which there are some fine trees, look clean and healthy, and the same may be said of greenhouse plants generally, but the fine old Palms are in a sad condition. Generally speaking, however, the aspect of the place is promising, and I feel confident that in a year or two Sion will present a condition superior to what it has hitherto done for years.

J. K.

BEDDING PLANTS.

IN the hope that it may be interesting to your readers who belong to the large and influential class of amateur florists, I send you a few hints, which I think I may venture to say will, if carried out, produce pleasing results. In growing plants for bedding out, I must, in the first place, advocate the plan of having but one in a pot, for, by the practice of cramming quantities together in pots, pans, or boxes, not only is the plant stunted of light, which is of course all-important, but also by the pressure of surrounding plants it is confined to a smaller space than it would occupy if it were grown separately in a pot of large 60-size, which is the one I use. A plant which has thus had the full advantage of both light and air will, when planted out, appear in bloom almost immediately, whilst the others would not bloom for a month or more; and thus we lose that beautiful time of year, early summer. A few less plants might be obtained by this system, but the quality will amply repay the loss; for the flower garden of which I have the care, which is of moderate size, say about an eighth of an acre, I find that the quantity of plants which I have annexed to each variety is amply sufficient; I will also try to give a few useful hints as to the positions in which the plants can be best used. Let us commence with scarlet and fancy Geraniums of the bedding varieties:—

Tom Thumb, 300 plants.—At this time of the year, or even a month before, fine trusses may be cut from this variety, which will make a fine addition to other cut flowers.

General Pelissier, 30 plants.—A fine variety, not well adapted to bedding purposes, but unrivalled in pot culture. Blooms earlier than *Tom Thumb*; liable to great variation in colour; beautiful horseshoe foliage.

There is, in addition to the above, *Christiana*; beautiful rosy pink, free bloomer, large and bold truss, pleasing habit.

Lady Middleton, a light pink, good habit, free bloomer.

Lord John Russell, an improvement on the above, habit very free; altogether a fine variety.

Lizzie, rich salmon, free bloomer, large truss, foliage horseshoe; best adapted for pots.

Cerise Unique, similar to *Lady Middleton*; equally good in pots or bedded out; fine horseshoe foliage.

Rose Queen, *Reidii*, *Miss Emily Field*, *Bishopstowe*, *Richmond Gem*, *Blazer*, and *Tom Thumb's Bride*, all good habits and free bloomers, but more adapted for growth in pots. Of these latter varieties, I should like to grow more than I do, but I use about 60 plants altogether.

Variegated varieties, in all 60 plants.—Foliage as a rule very beautiful, but none very free bloomers; very useful for edging round flower beds; may also be cultivated in pots, in which they bloom more freely. I prefer the following:—*Flower of the Day*, *Jane*, *Brilliant*, *Annie*, *Burning Bush*, *Countess of Warwick*. *Lady Plymouth*, when used as edging, must be planted thickly. A fine example was seen last year at Mr. Turner's Royal Nursery, Slough.

Next let us speak of Phloxes. Gen. Brea, Minerva, Mons. Guizot, Duval, and Madame Derdan, are very fine, but are more adapted for borders of miscellaneous plants than for beds by themselves.

Of Verbenas I grow about 400 plants. Early spring struck cuttings are preferred. The following, out of about 50 varieties, with us stand best against wet weather, by which the beauty of a Verbena bed is so much spoiled:—Evening Star, Mrs. Holford, Dr. Sankey, Celestial, General Simpson, Géant des Batailles, striata perfecta, Malakhoff, Lord Raglan, Mrs. Woodroffe, Satanella, Purple King, Marianne, Lydia, Lord Elgin, Mars, Novelty, Madame de Blaine, Ne Plus Ultra, Lightning, Brilliant de Vaise, Souvenir de Mons. Seringe. But in bedding out Verbenas, attention should be paid to habit; for a rank and close growing habit, if planted together, prevents that even appearance which adds so much to the beauty of a bed.

Of Calceolarias, aurea floribunda is undoubtedly the best for bedding; it looks well edging a bed of Tom Thumb Geraniums; I generally grow about 90 plants.

Ageratum mexicanum looks well planted pretty closely in the centre of a bed; it is too tall to make a handsome bed without some lower plant of a good contrast in colour around it; of this we require about 50 plants.

Cuphea platycentra, 40 plants.

Salvia patens, good for centres, 20 plants.

Antirrhinums of the scarlet, sulphur, rose, and white varieties, 50 plants.

Pyrethrum album plenum, 20 plants.

Larkspur—formosum and magnificum, &c., 50 plants.

Lobelia speciosa and Koniga variegata, for edgings, of each 100 plants.

Heliotrope, Beauty of the Boudoir, 30 plants.

Pentstemon, scarlet, 40 plants.

Gaillardia picta, do., well pegged down, 50 plants.

Nasturtium, Tom Thumb, 60 plants; very showy, but apt to grow rather too freely.

Of dwarf bedding Dahlias, I prefer Zelinda (purple), Crystal Palace Scarlet, Midnight, alba floribunda pleno, Royal Purple, Beauté de Massiffs, Goldfinder.

Show Dahlias look well in borders, if set back.

The same may be said of Hollyhocks, of which I have seen grand displays in some gardens; and of which I would recommend the amateur to grow seedlings rather than old varieties, as they open a wide and interesting field for experiment.

Of annuals, the essential varieties are Asters—Bouquet, Pyramid, and French Pæony—all 12 distinct sorts; Zinnia elegans, do.; Balsams in great variety; Marigolds, French and African; do. Pigmy French, for edging; Ten-week Stocks in various colours; Convolvulus minor; Portulaccas of various colours, growing low, and very showy for beds; together with Sweet Peas, Mignonette, and many others I could name, which have all their proper places in a well-arranged flower garden.

The plants most suitable for baskets and vases are Maurandya Barclayana, Eccremocarpus scaber, Petunia Prince Albert, Tropæolum

Brilliant, do. *Lobbianum elegans*, *Neirembergia gracilis*, *Lobelia speciosa*, *Geranium Lady Plymouth*, *Ipomœa Quamoclit*, do. *violacea*, do. *coccinea*—all of which are more or less trailing in habit, while scarlet *Geraniums*, *Calceolarias*, *Salvias*, or *Fuchsias*, will be found useful in filling up the centres.

I have thus attempted to lay before you the whole of the information I possess upon this most pleasing branch of horticulture; and, if any of your readers detect omissions, I must claim their indulgence, for it is difficult to embrace everything in such a paper as this.

J. WIGGINS,

Gardener to E. Beck, Esq., Worton Cottage, Isleworth.

OUR COMMON PRIMROSE, OXLIP, AND COWSLIP.

FOR many years (says Mr. Jordan in the "Phytologist") I have wandered over their native localities, in woods, meads, and commons, far distant from the habitations of mankind. In those places I find them undoubtedly as unvarying as when they first appeared by the command of the Creator of all things which adorn the earth's surface, and will continue so until it may please the Creator to establish a new order of things. The physical habits of each bespeak a peculiar organization, obscured and incomprehensible for the limited faculties of man to develope, however acute a physiologist.

The specification of plants in our present state of botanical knowledge is indefinite, and not sufficiently comprehensive to give to many of our plants their specific claims; and the nomenclature is in many instances not sufficiently significant; so that some good species are considered varieties, and some varieties species. In a numerous tribe of plants, frequently many of them are so allied to each other that it requires every character and habit of each to be taken into consideration to give them their just claims as species, even to a chemical analysis. The habits of those three differ as much as their physiognomy. The Primrose is decidedly an arboreal, the Cowslip a pastoral plant; the Oxlip has no predilection for any locality, being but sparingly found anywhere: no condition increases its numbers, as it does that of the Cowslip.

By agriculture the Cowslip flourishes; by agriculture the Primrose is destroyed. The Primrose may be seen in flower six months in the year, the Oxlip and Cowslip not so many weeks. I have known the Primrose's sylvain domain destroyed, and long furrowed by the plough, and then pastured; in time Cowslips began to spring, and continually increased, but no Primroses appeared,—only a few that found a refuge at the hedge, having escaped the rack and ruin of their ancient heritage and race.

The Primrose is found in profusion in our woods and copses; the Cowslip and Oxlip are but sparingly found in their native woodland glades or commons. They all prefer a stiff, dry, rather poor soil; in

rich pastures they do not abound. The Primrose likes its sylvan shade; the Oxlip, the woodland glade; the Cowslip prefers the upland mead.

It must be evident to every one what can be accomplished by art in the metamorphism of plants in the order Primulaceæ, and many other tribes; so that man, by torturing Nature, has by those metamorphisms obtained, not created, a most gorgeous floral world of his own, which he only holds on sufferance. If he neglects his trust, Nature will recall the charge, and strip them of their gaudy array, and place them in their pristine state of simplicity. I have cultivated these three plants for many years with many varieties of the Polyanthus: those from seed produce regularly an endless variety of forms, of all shades of colour, and monstrosities.

I have not found the Cowslip, Oxlip, or Primrose to undergo much change of character in the garden.

Insects are extremely fond of the Polyanthus, which causes such an endless variety when produced from seed; and often, many of those plants growing near together, the pollen is immediately transmitted from one flower to another. The Primrose, in its native wilds, far distant from the Polyanthus of the gardens, suffers no change of character; the pollen is not likely to be carried on the proboscis of those insects, as it would be on the feeding parts of insects in general.

How happy were the days of our infancy, when we in fairy groups went Maying to the Primrose copse to pick the full-blown Primroses from their mossy couch, prattling on our infantile affairs, to us then of much import, ere care in our bosoms found a place, or sorrow more than a momentary stay! With the Primrose corolla-tubes we blew our fairy trumps, then sang our morning hymn responsive to the feathered warbler's matin song, the selfsame song which their first parents raised at life's first dawn to sing their Maker's praise. Then to the meads, to pick the Cowslip flowers to make our Cowslip ball, or in our little baskets pick their corollas to make that soothing wine so much famed in those epidemics to which infancy is prone and oft so fatal.

HOW TO PRESERVE FLOWERS IN THEIR NATURAL FORMS AND COLOURS.

OF late an entirely new article of trade has arisen in Germany, in the shape of dried flowers. Erfurt, the city of nurserymen and florists, excels in manufacturing bouquets, wreaths, floral decorations for rooms, dinner tables, &c., made of such flowers. We are glad therefore that we are enabled to lay before our readers the *modus operandi*, by translating for them the following article from the "Deutsches Magazin für Garten und Blumenkunde."

First condition: Get a lot of fine sand, wash it till all the soluble particles are gone—you can test it by pouring the water off till it looks quite clear; when you are quite sure of the fact, pour the sand on stones or boards placed aslant, so that the water can run off, and let it get dry either by sun or fire—dry, perfectly dry. Then pass the sand

through a sieve, so that all dusty particles disappear from it, as there will be such, which washing and drying will not have removed. Then pass through a coarse sieve, so as to get rid of too large grains. When that is done your sand should be a mass of fine particles of nearly equal size, as is for instance the so-called silver sand. Keep the sand in a very dry, if possible also in a warm place, that no vitalising quality may remain in it.

Cut the flowers in a fully developed state, taking care that they are neither wet nor moist by dew, rain, &c. If you cannot obtain them in any other condition, then the following troublesome proceeding will render them dry. Take one or two flowers at a time, and put them into a glass, into which pour just enough water that the ends can stand in it; the flower will then dry, and still suck up water enough to prevent its fading.

Next get a box or pot, or anything large enough to hold your flower or flowers; pour sand enough into it that they will stand by themselves, their stems imbedded in the sand. You have to fill up the box above the level of the flowers with sand, so that the flowers are completely imbedded in it. By means of a tube or a funnel or a sieve, just accordingly, you can do it in such a way that every particle of the flower rests in sand, and that your filling up shall not have crumpled or displaced the smallest petal. Of course such a thing can be done only in a very slow way by a beginner.

And now take care not to shake your box, else the flower inside might get hurt. Carry it to a place both dry and warm, that all the moisture in the flower may pass into the sand, which being porous, is in turn acted upon, and will let the moisture pass entirely out, and get evaporated. Avoid, however, positive heat, or the colours of the flower will fade; whilst at too low a temperature the moisture in the flower will not dry quickly enough, and so rot it. The warmth should, as a general thing, never exceed 100°.

When you are sure that your flowers have fully dried—a thing a very little practice in touching the box will teach you—the thing is done. Open the box, and by holding it in a slanting direction, let so much sand run out that you can lay hold of the flower by the stem; by turning it upside down, shaking it gently, and, if necessary, blowing on it, all the sand will be removed, and you have the flower in its most perfect form. A little brittle, to be sure, in such a dry state as this, and therefore requiring careful handling. But a few days' exposure to the atmosphere will have imparted moisture enough to the flower to make it considerably less brittle.—*American Gardener's Monthly*.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—Plants of the former wanted for blooming late must now be carefully shaded from the sun, and exposed to a free circulation of air day and night, unless when there may be danger of the temperature sinking below 36°. Plants that have bloomed, if wanted to flower early next season, should be placed in a moist warm

atmosphere, previously repotting, tying out the shoots, and cutting out back weak wood, as may be necessary. If afforded a moist atmosphere, with an average temperature of about 60°, and shaded from the mid-day sun, these will make a fine growth, and set for bloom early; and, if well ripened by exposure out of doors, will be in fine condition for forcing early next winter. Camellias which have bloomed, and require more pot room, should be repotted at once, using about equal parts of good hard fibry peat and turfy loam, with a free addition of bones broken small and sharp sand; and have their foliage thoroughly cleaned, and be placed in growing circumstances, so as to be prepared with a supply of plants ready to furnish flowers at any time these may be wanted next winter. *Conservatory*.—Twining, such as the beautiful Mandevilla, Ipomœa, Tacsonia, Passiflora, &c., which bloom in summer and autumn, should now be liberally supplied with water at the root, in order to promote strong healthy growth early in the season; and timely and frequent attention should be given to regulating the young growths, so as to induce each to cover the space for which it may be intended, without having to resort to untwining and tying after the plants have made long growths, when it is very difficult to dispose the shoots of such things so that they will look natural and free. Hardenbergias, &c., will require a liberal supply of water at the root while in bloom, and should be cut back freely as soon as they have done flowering, and carefully cleaned if infested with scale. These will not require much water at the root after cutting back until they start into growth, but will be greatly benefited by a rather moist atmosphere, and syringing overhead on the evenings of bright days. Attend to keeping specimens planted in the beds and borders properly supplied with water at the root. Also cut back Luculias and other plants which require this attention, to keep them bushy, and see that this is done before they start into growth. Keep everything perfectly clear of aphids and other injurious insects. Be prepared with shading, which will be necessary to preserve the beauty of plants in bloom, and, if used only for a few hours during the forenoons of bright days, will not injure plants making their growth. If the weather prove bright and dry, sprinkle the beds, borders, &c., morning and evening, in order to secure a moist atmosphere, which will greatly benefit things in growth, and prolong the beauty of those in bloom. See to providing a liberal supply of Fuchsias, Clerodendrons, Statice, &c., for the decoration of this house, when the Azaleas and other spring blooming things are over. Also get a good stock of Chinese Primulas (double and single), Daphnes, &c., for autumn and early winter blooming; likewise get a large batch of Achimenes and Gloxinias potted and started, selecting the most useful varieties. *Cold Frames*.—The whole stock of Verbenas, Petunias, Heliotropes, Lobelias, Geraniums, and other similar things propagated by cuttings, and used for the decoration of the flower garden, should be potted off at once where not already done; and late weakly plants should be encouraged by a gentle moist temperature, so as to get them sufficiently strong in time to allow of their being properly hardened off before planting-out time. Dung frames or pits are perhaps the best of all conveniences for securing strong free growth, but every possible means

should be used to have the whole stock of plants sufficiently strong by the end of this month for planting out, and then they should be freely exposed to the weather, save on the forenoons of hot days, and when there is danger of frost. Stocks and Asters should be sown in gentle heat at once, and either potted off or pricked out in lines on a slight hotbed as soon as they are sufficiently strong to handle. Also the general stock of half-hardy Annuals should be sown in lines on a gentle hotbed, to be transplanted at the proper time, or where hotbeds and frames cannot be spared for this purpose they may be sown in pans in the greenhouse, or under handglasses on a warm border. Cinerarias will require a liberal supply of water at the root, and must never be allowed to get too dry, and Calceolarias which have well filled their pots with roots must also be liberally supplied with water at the root; and every means should be used to afford these a rather moist cool atmosphere, and to keep them perfectly clear of insects. *Flower Garden*.—Sow hardy annuals, not forgetting a liberal supply of Mignonette; also biennials and perennials, towards the end of the month, where these are in demand. Get any necessary re-arrangement of herbaceous plants, American and other shrubs, finished as soon as possible, and see that recently transplanted shrubs or trees are not allowed to suffer for the want of water. Finish pruning Tea or any other Roses not already done, and also attend to the pruning of shrubs, which require this attention, and get those on walls or screens pruned and trained before they start into growth. See that gravel walks are in perfect order for the season, and keep the turf well rolled, and mow closely early, which will greatly assist in securing a good close velvety turf. *Greenhouse*.—Look over last month's calendar. Young stock of New Holland plants, &c., which it may be desirable to grow on as quickly as possible, should be placed in frames or pits where they can be kept rather closer and afforded a moister atmosphere than would be advisable for the general stock—shading them from the forenoon's sun, syringing lightly, and shutting up early on the afternoons of bright days. These must not be allowed to suffer for the want of pot room, and should be cut back as may be requisite to secure close growth, and tied into shape; and they must be carefully attended to with water at the root, never watering only when the soil is dry, and then giving sufficient to thoroughly soak the ball.

Fruit (hardy).—Presuming that all pruning, nailing, &c., was finished last month, very little remains to be done in this department for the present. Attend to the covering of Peach and Apricot trees, should frost continue, but uncover in the day-time. Do not be in too much hurry in disbudding Peach and Nectarine trees, for it is better to encourage all the foliage possible for the present, so that the circulation of sap may be more active, as well as for a protection to the young fruit, to shield them from frost and cutting winds, usually so prevalent at this season. If green-fly attack the trees, destroy them at their first appearance; common snuff and sulphur, equal parts, is the best to use at this early season, as it is dangerous to use a wash strong enough to kill the fly without endangering the young fruit; next month it may be used with safety; the trees may be dusted with

a small dredge, if a sulphur bellows is not at hand. Graft Apples and Pears in the early part of the month, especially old standard trees that have been headed down for that purpose ; it is a good plan to tie Moss over the clay, to keep it from cracking and dropping off. Prune and nail Fig trees, protect if frosty. Plant Strawberries, and keep the soil stirred among the growing plants in dry weather. Keep down the young crop of weeds in the fruiting beds, and prepare for mulching the plants with manure or litter. Liquid manure may now be freely given. *Forcing Ground*.—Carrots, Radishes, Lettuces, and Cauliflowers, forwarded in frames, should have full exposure in fine weather, and harden off those plants intended for planting in the open ground. Give good soakings of water to all vegetables growing on dung beds or under glass, and earth up Potatoes and Cauliflowers as they may require it. Pot Capsicums, Egg Plants, and Tomatoes, and keep them growing in a moderate heat. Make the last sowing of French Beans in a cold frame, or under hand-glasses. Keep up plenty of moisture in the Mushroom house, and let the temperature range between 60° and 70°. Collect droppings, and place them thinly under cover until required for making new beds. *Cucumbers and Melons* will now require more air and water in proportion to the increase of sun-heat and light. Maintain both the top and bottom heat of the beds, as before advised. Sprinkle the plants, and close early in the afternoon. Keep the shoots thin, so that the foliage may have full exposure to light, and stop a little above the show for fruit. Pot the succession plants, and sow again the first week in the month ; also Gourds and Vegetable Marrows. *Vines*.—Attend to previous directions, gradually increasing the temperature as the fruit advances. Attend to the thinning of the berries as they may require it, as well as the stopping and regulating the shoots. Keep up a moist atmosphere till the fruit begins to colour, when syringing must cease altogether. *Pines*.—If any of the succession plants were not shifted last month, no time should now be lost in getting them repotted ; use a good free turfy loam, mixed with rotten manure. Keep close for a few days, and do not give much water till the plants begin to make root, when more air and water may be given ; avoid giving *front air* to any of the Pine pits. Plants in fruit require a temperature of 80°, with an increase of 10° by sun-heat. Water freely. *Peaches*.—Go on with disbudding in the late houses, and tie in and regulate the shoots of those farther advanced. Select for next season shoots of moderate strength, choosing those springing from the base or heel of the previous season's growth. Stop the shoots above the fruit, except where required to form a leading branch. The thinning of the fruit must entirely depend on the strength of the tree ; if vigorous and healthy, double the usual quantity may remain without injury to the tree ; on the other hand, the crop should be well thinned on weakly trees, and manure water given to encourage growth. Do not hurry the fruit during the process of stoning. A night temperature of about 60° will be sufficient, and plenty of air in favourable weather. Use the syringe freely every day. *Strawberries*.—See previous directions. *Cherries*.—Give plenty of air and moisture while the fruit is swelling, but as soon as it begins to colour less is

required, with an increased temperature by sun-heat. The night temperature at that stage should be about 60°. Keep the black-fly in check by dipping the shoots in tobacco water. *Kitchen Garden.*—Plant out in deep rich soil Cauliflowers, Lettuces, Cape Broccoli, &c., that were forwarded under glass; harden them by exposure to the weather before planting. Sow Incomparable and red Celery, Broccoli, Cabbage, and all the Brassica tribe. Snow's Early Broccoli, Walcheren and other Cauliflowers, intended for autumn use, should be sown at the end of the month. Sow the main crop of Altringham and Surrey Carrots, Beet, Salsafy, and Scorzonera, on the first favourable opportunity. Sow early French Beans on a warm border, Scarlet Runners and Haricot Beans at the end of the month. Succession crops of Broad Beans and Peas should be got in, sowing twice through the month. Scimitar, Champion of England, Veitch's Perfection, and Victoria Marrows, are good kinds for sowing at this season. Get the main crops of Potatoes planted before the month is out. Keep the ground moved by frequent hoeings among all growing crops. Dress and earth up Asparagus beds in dry weather; make new beds; plant Seakale, Horseradish, Jerusalem and Globe Artichokes, and sow Turnips and Lettuces in succession.

FLORISTS' FLOWERS.

Auriculas.—This has been a trying season, and the bloom must be backward. On the 8th of March, we had here (Deal) as sharp a night's frost as any night during the winter; and the continuous rain and frost prevents these getting on. If we have a warm April, plants will be coming into bloom. Then shade by pieces of tiffany, fastened on the edge of the frame, to be taken off when the sun leaves them. Liberal watering, great cleanliness, and constant supervision, are needed. *Carnations and Picotees.*—These ought all to be potted now, and placed under shelter for a short time, in order to secure them from sharp cutting winds. Small sticks should be placed to tall growing varieties. *Dahlias.*—A busy month in getting cuttings potted off. The frame (if one is used) should be lined, and a good moist heat kept up. Cuttings should be kept shaded from the sun until well rooted. If a second hot-bed is procurable, it is better to use it than the one in which the roots have been placed. Those who grow for exhibition, will find, I think, some valuable additions to the lists this year. *Pansies.*—To be hardy, and to be able to stand severe cutting winds, are two very different things; therefore, do not hesitate to protect those in pots when the "vile north-easter" is blowing, and keep frost from the frames. Strip off side shoots, and if you want increase, put them in for cuttings. *Pelargoniums.*—The earlier plants are now making rapid progress in throwing up trusses for bloom. Tie out and watch the plants well; they should have plenty of water, and the floor of the house may be occasionally on fine days well wetted, and if the weather be cold and dull, a little fire-heat will be necessary, but be sparing of this. *Roses.*—It will be well for those who did not prune their trees till late, for these severe frosts will kill back many a joint. Now comes into play that horrid monster the Rose grub; there is nothing I fear for him but hard picking. Can anyone say whether Gishurst, applied as a lather, is likely to be too strong for him?





Hyacinth.
Argus.
Plate 164.

HYACINTH ARGUS (GARDEN VARIETY).

(PLATE 164.)

THE Hyacinth, so long the pride of Dutch gardens, is now becoming a popular show flower in Britain; and as such, taken in connexion with several other genera recently added to the list of florists' flowers, clearly shows that public opinion is progressing in favour of plants with highly coloured blossoms, which are fast superseding the Cape Heath and other hard-wooded plants, all but universally grown a quarter of a century back. This is not owing to any falling off in point of merit, for Ericas, Epacrises, and the beautiful Papilionaceous plants of New Holland have still their admirers; but where only a limited number of plants can be grown, or where a good succession of bloom is wanted throughout the year, the Chinese Azalea, Cineraria, Pelargonium, and even the Calceolaria, are preferred as being more showy, and less difficult to cultivate, than Heaths, Epacrises, Dillwynia, Leschenaultia, Pultenæa, Hovea, and their allies, which, though unequalled amongst greenhouse plants for loveliness and beauty, are hard to grow in perfection, and seldom reward us with that amount of their graceful and often richly-pencilled flowers as we could desire.

Although the Hyacinth has from time immemorial been cultivated in our gardens, on a limited scale, as a border plant, it is most widely known as a forcing plant. The ease with which it produces its flower-spikes in mid-winter has long made it an indispensable article for conservatory and room decoration, for which purposes it is unrivalled for its beauty and fragrance. But it is only within these few years that either commercial or private growers have thought it worthy a public exhibition, the credit for establishing which belongs to the Messrs. Cutbush & Son, of the Highgate nurseries. The success which has attended their Hyacinth exhibition has done the best service to our present subject by bringing its merits immediately under the notice of the patrons of flowers, and has doubtless done much towards popularising it as a florist flower, worthy of that care and skill so strikingly exhibited in the cultivation of other plants, when once put on the list for competition. Now that public taste has fairly placed the Hyacinth on the list of the florist, we may conclude that Hyacinth exhibitions will be as common in the spring as Chrysanthemum shows are in the autumn. We know of no flower more manageable by persons with small means than the Hyacinth, and none which would more certainly repay the

cultivator for his pains. The mode of cultivation, as given below, will insure a splendid show of bloom, and the appliances for growing require no very costly erections. But the cultivation, and we may add the exhibition of spring bulbs, will not end with the Hyacinth. There are early Tulips, Narcissus, Sparaxis, Scillas, Anemones, and Cyclamens, which must also be included, as well as some others. Once show the public what the above are capable of being brought to by careful cultivation, and an impetus will be given to the cultivation of these classes commensurate with the growing taste for florist flowers, and which will add greatly to the beauty and enjoyment of ornamental spring plants.

CULTURE OF THE HYACINTH IN POTS.

For this purpose the Hyacinth is remarkably well adapted; and, with the assistance of a garden frame, with some stable manure, or tan, to furnish a gentle heat, it may be had in flower at Christmas; and with a good stock of bulbs, the display may be kept up till April or May. For early flowering, the bulbs should be planted early in September; those to flower in spring should be planted during the months of October, November, and December.

The best pots are 5-inch (forty-eights) for one bulb, and 6 or 7-inch (thirty-twos or twenty-fours) for three bulbs. It may be well to add, that three roots grown together in one pot produce a much finer effect than single bulbs. If smaller pots than the above be used, greater care will be necessary in watering.

The soil used for potting should be as rich as possible; such as one-half fresh loam, cut from a pasture, with the turf decayed in it, and well decomposed cow or horse manure, with a small portion of clean sand, well intermixed. If, however, this cannot be obtained, then the lightest and richest at command must be employed instead, mixing freely with it well-decayed cowdung. Fill the pots lightly with the prepared compost, and place the bulb upon the surface, slightly pressing it into the soil. After giving the newly-planted bulbs a liberal watering, set the pots out of doors on a place where perfect drainage is secured, and cover them with about a foot of old tan, ashes, sawdust, leaf-soil, or any other light material. After remaining there for a month or five weeks, the bulbs will be sufficiently rooted to render it safe to remove them to a gentle bottom-heat of about 55°, introducing the pots, in numbers proportionate to the demand, at intervals of about a fortnight; a succession of flowers will then be secured, until those in the open air come into bloom. We would caution the amateur, when forcing the Hyacinth, to be careful that the roots are not allowed to penetrate the fermenting material.

Persons possessing no better accommodation for growing plants than a room window, will, with ordinary management, be able to grow and flower the Hyacinth as well, if not to have it in bloom as early, as those who can command a gentle heat. We need hardly observe that plants grown during the dark days of winter should be placed near the

glass, and be freely supplied with air, when this can be given with safety; and those grown in windows will draw towards the light, unless the pots are frequently turned. A sitting-room window forms a suitable situation for Hyacinths while in bloom, and their beauty will be longer in fading here than in most situations; in no instance should they be removed from a close atmosphere, and suddenly exposed in a sitting-room window, until they have been previously hardened in a suitable temperature to withstand cold drying currents. We warn the inexperienced to guard against this common error, and to avoid subjecting the plants to sudden changes at any period of their growth.

The following varieties will be found to unite every shade of colour, with fine spikes, and are a selection of the best only:—

DOUBLE RED.

Duke of Wellington, fine pale rose, bells large, beautifully arranged, large spike
 Jenny Lind, large bells, good spike, fine
 Koh-i-Noor, rosy pink, immense spike, moderate bells, new and distinct
 Milton, deep red, large bells, good spike
 Panorama, carmine, good bells and spike, a fine variety
 Princess Royal, fine red, large bells and spike
 Sir Joseph Paxton, large spike, a fine new variety
 Susannah Maria, salmon rose, fine bells, good spike

DOUBLE WHITE.

Henry the Fourth, fine flower, good spike
 Jenny Lind, good spike and bells, fine
 La Tour d'Auvergne, fine pure white, moderate bells, good spike
 Prince of Waterloo, fine white, immense bells and spike

DOUBLE BLUSH.

Frederick the Great, semi-double, good spike, fine
 Lord Wellington, a fine variety, with beautiful close spike
 Regina Victoria, large spike and bells, extra fine

DOUBLE BLUE.

Bloksberg, marbled blue, large bells, good spike
 Comte de St. Priest, fine light blue, good bells, large spike
 L'Importante, shaded blue, fine bells and spike
 Laurens Koster, deep purplish blue, with well-formed pyramidal close spike
 Madame Marmont, azure blue, fine bells and spike
 Van Speyk, striped dark blue, large bells, good spike
 Sir Colin Campbell, dark blue, shaded, fine bells and spike

SINGLE RED.

Amy, bright red, beautifully formed, large bells and spike
 Agnes, fine close spike, good
 Belle Quirine, pink striped with carmine, large bells, good spike
 Circe, shaded carmine, large bells and spike
 Cosmos, pale pink, large bells, fine spike
 Desdemona, dark crimson, moderate bells and spike
 Lady Sale, deep red, large bells, immense spike
 Lina, bright red, moderate bells and spike
 Madame Hodgson, pale pink, good bells, finely formed spike
 Monsieur Feasch, shaded carmine, close spike, fine
 Mrs. Beecher Stowe, fine pink, striped red, large bells, fine spike
 Queen Victoria, pale pink, red stripes, fine bells and spike
 " " Alexandrine, bright crimson, fine spike, good
 Solfaterre, brilliant orange scarlet, large bells, fine spike
 Von Schiller, fine pink, good bells, large spike

SINGLE LILAC.

Honneur d'Overveen, bronze lilac, large bells and spike, fine new colour
 Prince Alfred, violet, large bells, good spike

SINGLE WHITE.

Grandeur a Merveille, pale blush, good bells, large spike
 La Baleine, deep blush, good bells and spike
 Madame van der Hoop, pure white, large bells, immense spike
 Madame Talleyrand, fine white, large spike, good
 Snowball, pure white, large spike and a great advance in shape

SINGLE BLUE.

Argus, indigo blue, with distinct white centre, large bells and spike, new
 and novel
 Baron von Tuyll, dark blue, large spike, fine bells
 Charles Dickens, pale blue, large bells, good spike
 Couronne de Celle, pale blue, immense spike, fine
 Grand Lilac, azure blue, large bells, fine spike
 Lord Raglan, fine close spike, one of the best
 Orondates, porcelain blue, large bells and spike

SINGLE BLACK.

Black Prince, fine spike, good bells
 General Havelock, dark purple changing to black, large bells, immense
 spike
 Prince Albert, blackish purple, large bells, and fine spike
 Siam, fine spike, large bells, good

SINGLE YELLOW.

Anna Carolina, fine clear yellow, good bells and spike

SOILS, FRUITS, AND MANURES.

(Concluded from page 110.)

MANURES.—What is the best kind of manure for fruit trees will depend very much on the nature of the soil to which it has to be applied. We must also remember that manures have a two-fold action—one fertilising, the other mechanical. This, the fertilising quality, as well as the material from whence manures are derived, should be taken into our calculation, as on this will mainly depend their adaptation for each class of soils to which they are applied. In a former paper on these subjects (page 18), we classed soils generally as calcareous (containing more or less of lime in their composition); aluminous (containing a large amount of clay); arenarious (or sandy soils), and peat. For the present we will confine our remarks to the three former, as peaty soils hardly come within the category of fruit soils. Taking the soils containing lime more or less in their composition, we at once perceive that they absorb solar heat less readily than others, and may therefore be termed cold soils, though, as they are usually well drained, they are cold only comparatively. The most suitable fertilisers for these soils are ammoniacal manures, or those which contain a considerable per centage of either ammonia or nitrogen, of which night-soil, horse manure, guano, soot, flocks, and bone shavings, may be adduced as examples, and of which good stable manure will answer every purpose, so far as preparing soils of this class for fruit trees is concerned. A clayey

soil is almost as much benefited by manures, which act mechanically, that is, by keeping the soil open and permitting the passage of air and water through it, as by contributing to its fertility; thus half-rotten leaves of trees, decomposed tan, and any littery manure (not cow or pig dung), forked in, and well mixed with clayey soils, greatly improve them. Coal ashes, the sweepings of towns and scrapings from turnpike roads, are all useful materials for improving clay soils, and for these dry peaty earth may be substituted where it abounds. In addition to stable dung; bone dust, guano, and soot, are good fertilisers; alkaline and phosphate manures being far less efficacious on clay soils than on those more inclined to be loamy.

For sandy soils, and more particularly those of a dry poor nature, including gravelly and brashy soils, the manure should possess a cool and retaining property. No manures are better adapted for this class of soils than the dung of cows, sheep, and pigs. The latter is the richest, but this depends on the kind of food eaten by the different animals. The two former, if confined solely to Hay or Grass, will be nearly a pure vegetable manure, and, from its cool properties, will be well suited to dry sandy soils; while, on the contrary, hot ammoniacal manures are often more prejudicial than useful for those kinds of fruits which are apt to gum. We prefer sheep and cow manure to any other, as less stimulating, for the Peach, Cherry, and Apricot; but for orchard fruits, the cultivator will not greatly err by taking our directions as to the manures generally suited for each class of soils treated on.

We have now brought these papers to a close, hoping that they may be useful to some of your readers less conversant with fruit tree soils and manures than the practical gardener, ending with one recommendation to the amateur, viz., to apply as little manure as possible to his soil, if he can procure it rich enough without its use.

THE SLAUGHTER OF THE INNOCENTS.

DAHLIAS.

IN the two former papers, in which I ventured to deal with the new flowers of last season, I had a tolerably wide range, and felt that I was writing of flowers of general interest, for what "S. R. H." calls the bedding-out mania, is so wide spread, that Verbenas and Geraniums are everybody's flowers; in fact, this eruptive disease, which comes out principally in red and yellow spots and streaks, seems to have become quite endemic, and affects the owner of some 40-feet square garden, as well as the possessor of acres of *kaleidoscope*; and not only is it driving out of the field those good old-fashioned border flowers of which "S. R. H." speaks, but threatens the "florist's flowers." There will be a reaction some of these days, and people will wonder why they neglected both classes. I have always felt that if ever I had a garden of any size, I would have a long border, laid out in the regular old-fashioned style—for one's sunniest memories of an English garden are connected with them—where there is always something in bloom, some-

thing fragrant, and pleasing to the eye. Even the Dahlia, that noble autumnal flower, must forsooth be pressed into the service; and if it is to be tolerated at all by our *bedders*, it must be only as a *bedding flower*. Thus a great many will have no interest in a paper which *only* deals with a florist's flower; but as the admirers of the Dahlia are numerous, and the growers of it scattered far and wide, perhaps a few words will interest them. In the former papers, I had too a personal interest. I grew the flowers, and therefore selected for my own growth, as well as for the guidance of others. In the present instance, I write of a flower which I greatly admire indeed, but which makes demands on one's time and labour I am unable to give it, and which therefore after one season's trial I have been forced to relinquish the growth of. Each season brings a large addition to the list of Dahlias, and each season as surely sees a number of them consigned to the rubbish hole. I do not think that this is exclusively to be attributed to exaggerated ideas of their value, entertained by raisers of seedlings, though I am free to confess that the proverb of every man's own "geese being swans" is too often realized; but it is also to be remembered that no flower is more capricious than the Dahlia—none on which season and locality have so great an effect. Varieties which have succeeded admirably in one garden, failing altogether in one a few miles off; but withal, it is curious to look over the catalogues of Dahlias, and see how, year after year, kinds, whose advent was heralded by a great flourish of trumpets, are now completely put out of the list, and more unmistakeably so in the lists of winning stands; but few of the older flowers stand their ground, their *nose* being completely put out of joint by new candidates for public favour, the result is, that in some colours perfection has been almost attained, while in others there is still room for improvement; for not only must one have colour, and form and size, but also constancy. It is of little use either for ornament or exhibition to have a variety that will give you one perfect bloom in a dozen. What is wanted, is, a regular series of good blooms. Having had the opportunity of seeing most of the new flowers of last year in growth in various localities, I now give the result of opinions formed on them:—

Brentford Hero (Hopkins), puce with bronze tip, too thin, and consequently only a second-rate

Chairman (Turner), yellowish buff. I think that for beauty of form and constancy this may be pronounced the best Dahlia yet raised. I have heard a complaint against it, that it has too many small central petals, but this only is the case when the plant is young; but you may be always sure of good blooms on the plants

Disraeli (Noel), bright orange scarlet, plants too large, and flower too open; *will not do*

Daughter of the Morning (Rawlings), buff, not equal to Lollipop, which it resembles in colour

Emperor (Fellowes), crimson, a well-built flower, constant, and in every respect good

Golden Drop (Keynes), deep yellow, and of great size; it is perhaps rather inclined to be coarse, but judicious management in thinning may to a great extent remedy this

Grand Master (Keynes), orange, will not stand, far too open

John Dory (Holmes), full flower, yellow, fine habit, but too late for early showing

- Lord Eversley (Green), reddish salmon, full flower, form good, but some complain of its uncertainty
- Mr. Charles Waters (Edmonds), another salmon flower, very full, double, and well built
- Pioneer (Turner), deep scarlet, a fine flower, and one, as far I have seen, to be depended on for constancy of bloom
- Rosebud (Alexander), great difference of opinion has been shown as to this flower—some lauding it up to the skies, others speaking disparagingly of it; the colour is a pale rose, the flower is very large and deep, but size often produces coarseness, and this I think is the case with Rosebud
- Rosa Bonheur (Fellowes), pale lilac, and very large; but here again size has been gained at the expense of refinement, and Rosa will not satisfy Dahlia growers as well as her namesake does artists.

FANCIES.

“Tell me where does *fancy* dwell?” for certainly it is most puzzling to tell what are the principles on which the separation has been made—white with a purple tip is a Dahlia, but purple with a white tip is a “fancy.” Very odd; however the division is made, and there I suppose it will remain, so we must abide by it.

- Comus (Keynes), lilac, slightly striped with crimson, and a white tip; a truly fine flower, and will be sure to keep its place as A 1
- Dandy (Keynes), bluish, with broad stripe of maroon, and, though small, very pretty
- Jessie (Dodds), orange, with a stripe of red, a bright showy flower, but rather *too open*
- Leonard (Wheeler), amber, tipped with white; won't do
- Mrs. Charles Kean (Edmonds), pale yellow, tipped with white; an improved Duchess of Kent, and a constant and useful flower
- The Flirt (Holmes), rose and purple striped, a constant and finely formed variety, unquestionably a fine flower

I have thus endeavoured honestly to give my opinion on the new flowers of last season. I dare say many will differ in opinion from the judgment I have pronounced, but withal that, I cannot but hope that it will be found *not very far out*. There are some fine varieties coming out in May. Bravo and Scout I have already spoken of; besides these George Eliot, Lady Taunton, Lady D. Pennant, Mrs. W. Piggott, Pluto, Ethel, Queen Mab, Rev. Joshua Dix, and Leopard, will, I think, be much thought of, and probably some of the others also.

Deal, April, 1860.

D.

EFFECTS OF THE WINTER OF 1859-60 ON TREES.

THIS, the most memorable season which has occurred for many years, has in many places thinned out the survivors of former years, and what has been only partially killed by the frosts of winter, are likely to die outright through the influence of the bitter parching wind now prevailing; and which, blowing from the north-east, seems to wither up vegetation as it passes over it, worse, if possible, than the frosts of winter. We are witnesses of the effects of this piercing blast daily on tender foliaged plants, and sub-hardy Coniferæ. With us, *Pinus apulcensis*, *patula*, and *Montezumæ*, are dead, or nearly so; *P. ayacahuite*, *Lindleyana*, *persica*, and *halepensis*, much injured; *Cupressus Goveniana* and *thurifera*, browned but not dead; *C. funebris*, dead

(this plant is not worth a further trial); *Pinus insignis*, uninjured; and *Pseudo-strobus*, ditto. I name these as in some places they are considered tender. We have long since given up all the long-leaved kinds of *Pinus*, as too tender for our climate, excepting *Hartwegii*, which is safe here, at which I am surprised, as it is generally reported tender. All the rest, including *P. Bungeana*, *A. cephalonica*, *Webbiana* and *Brunoniana*, are safe; the latter only very slightly injured. *Cephalonica* is as hardy as *Pinsapo* when it gets up a few feet in height; *Webbiana* is injured only by spring frosts (the cold of winter does not seem to effect it while dormant, but when the young growth commences it is as tender as a Cucumber); *Bays* and *Laurestinus* browned in exposed places; hybrid *Rhododendrons* in many places killed down to the ground, particularly the scarlet crosses; strange to say, many of the Sikkim varieties are perfectly hardy, standing untouched by the side of hybrids from garden varieties quite dead. *Garrya elliptica*, dead in places; the said to be hardy *Chusan Palm*, quite dead, which is a loss, as it was likely to be largely introduced into garden scenery; the gold-blotched *Coltsfoot*, from the same country (China), killed to the ground, but where a little litter was placed over the crowns of the roots they are alive; the *Euonymus* and *Arbutus* injured only in exposed places. *Lardizabala triternata* against a wall, alive.

We have only a kind of purple Broccoli left, and the hard white dwarf Russian. All other vegetables, except Borecoles, were destroyed.

SOMERSET.

THE SIX OF SPADES.

CHAPTER V.

AND thus those gentle ladies survey with an amused benevolence the anxious difficulties of their faithful Joseph. Who, indeed, could be seriously angry with him, beaming, as he does, from a desire to please, and glowing with a determination to do his best? If on your coat some venial gravies fall, look in his face, and you'll forget them all. He impinges, I confess, upon his fellow-servants, at times when their equilibrium ought to be especially respected, as, for instance, when they are engaged in the administration of coffee, in the setting on of lamps, and the like; but only from an earnest, affectionate wish to hand you your muffin hot, an anxiety to get at you with something to eat—a noble sympathy, which, to feed you, my friend, kicks the shins, treads upon the corns, and ignores the proximity of meaner men. You do not approve, and I do not justify, the deep immersion of his thumb in the Trifle, as he places it proudly before you, although his Berlin glove is of snowy whiteness (“I would I were a glove upon that hand,” whispers your comic neighbour, “that I might kiss those sweets”); but we must both of us admire his attentive care of that beautiful crystal bowl, which he insists on carrying, to the intense terror of the whole household, knowing, as we do, that, rather than break it, Joseph Grundy would prefer to be “set quick i’ the earth, and bowled to death with turnips.”

Only once, within my cognizance, has he been seriously, nay sternly,

censured ; and this, on the occasion of an appeal, which he addressed to Miss Susan, for the loan of a certain, single-barrelled gun, "to shoot them oudacious blackbirds." He affirmed, that they not only stole his fruit, but that, when he drove them away, they just "popped on to the top of the wall, and then turned round, and *sauced* him." He had invented scare-crows of such repulsive aspect, as would have scared, he was sure, any decent birds into fits ; but those brutes had come back, as imperent as imperent. One effigy, that of a gentleman, fully armed with the artillery, which Joseph desired to realize, and threatening grim destruction to all around, they had treated with conspicuous scorn, sitting upon the fowling-piece, "disgesting," as Mr. Grundy said, and using the entire creation as a kind of lounge, and worse. So had they exceeded in effrontery those their naughty brothers, of whom we read, in a recent delightful biography,* that when the ladies set up an old packing-case, with a piece of red bunting affixed thereto, as an object which could not fail to dismay the winged banditti of the neighbourhood, "they stood upon the box to eat the Cherries, and then wiped their beaks on the rag!"

Were not these provocations sufficient, think you, to disturb even the placid spirit of a Grundy, and to make sour within him the rich custards of his human kindness? A mouse, we read, set the lion free ; and a blackbird may rouse the British ditto, even as the twopenny tin horn of the bird-tenter may excite the startled hunter, or speak to the charger of war. So there he stood, erect in all the majesty of wrath, bold as Ajax defying the lightning, and suggesting that he should like a gun.

And wherefore is Miss Susan mute? Stands she aghast, astonished, speechless, at the indelicate behaviour of the feathered tribe, or wherefore is she dumb? She loved those blackbirds well, and now she wears the strangely piteous look of one, hearing, for the first time, harsh things of her beloved, and listening to the most respectable evidence that the joy of her soul is a thief. There she stands, grandly indignant, like the Lady Ida, when she found three men in petticoats among her "sweet girl-graduates":—

"a tide of fierce
 Invective seem'd to wait behind her lips,
 As waits a river, level with the dam,
 Ready to burst, and flood the world with foam."

But Miss Susan keeps the flood-gates closed, and without a word, the heart's stream too flush and deep to ripple, she walks slowly, sternly, to the house.

But it is not the birds, my reader, who have caused this sad dismay. It is "animal implume," it is Joseph Grundy, for whom this stillness in the air portends a thunder-storm. Two hours afterward it fell.

I must tell you, first of all, that a real shower, material not metaphorical, had just refreshed the earth, and all the leaves of the glossy evergreens were shining, "as if" (Mrs. Verjuice beautifully said) "every one of 'em had been French-polished," when Miss Susan went forth to speak her mind. Poor Joseph's mocking bird was singing on the tree, as though he had wet his whistle to some purpose, and had

* The Life of Patrick Fraser Tytler.

clarified and strengthened his throat with raindrops, as the operatic songstress with stout.

“ Then Ida, with a voice that like a bell,
Tolled by an earthquake, in a tumbling tower,
Rang ruin, answered, full of grief and scorn.”

“ Grundy,” she said (he told me subsequently, with intense pathos, that she had not addressed him by his surname since he upset “ them gold fishes,” fifteen years ago, and he would much have preferred that she had commenced with “ Pick-pocket”) “ Grundy, be good enough to listen to that flute, and tell me which particular tones are inferior in sweetness to your big bassoon. And tell me at the same time, Mr. Joseph” (he would repeat the “ Mr.” with an extreme disgust, as though it were an epithet too vile and dreadful for any but the Prince of darkness), “ tell me why that chorister in his black cassock should not sing his anthems all the year round, as you once a week in the quire. It may be my want of taste, Joseph Grundy, but I prefer the tune which he is now singing, to your favourite, ‘ Bobbing Round!’ *Shoot the Blackbirds!* Kill our Minnesingers! I will not dwell upon the perils which must result, both to life and property, from your first experiments with a gun; I pass over the trifling inconvenience of our compulsory residence in the cellar, while you broke every pane in the house; but I pause to ask you how you dare to propose the murder of those sweet musicians, who not only sing for you as you work, but eat your grubs and wireworms by the bushel? Cover your Cherries with nets, Joseph Grundy—and your head with shame! You are worse, I declare, than that dull yahoo from the mining districts, who coming to spend a few days in the country, ‘ could not sleep o’ nights for them nasty nightingales.’ Shall I take our cage to Verjuice, and order her to make you a canary dumpling, or would you prefer that four-and-twenty blackbirds be forthwith baked in a pie? Seriously,—do those birds no hurt. ‘ Taught by a Power that pities me, I learn to pity them;’ and I commend the lesson to you.”

Then her neat figure, in its grey silken dress, moved away upon the gravel homewards; and he was left lamenting. And now befell a visitation, too common in an unloving world; a lancer rode forth to prick the wounded; a donkey came to kick the ailing lion. Like a pirate upon some helpless wreck, sweeps down Mrs. Verjuice upon Joseph’s grief. With bad taste and worse grammar, she announced her solemn conviction that it was his, Joseph’s, desire and haim to break his missusses arts, and it was her opinion, though she judged no one, that he was in Co. (by which she meant in partnership) with most of the internal powers; and she only hoped he might not some day find himself where the worm never should be squenched. This and much additional rubbish she discharged with great volubility, and then, imitating her mistress, retired with dignity.

But distinct and separate, as the orators themselves, were the effects of the two orations. Miss Susan’s speech left her hearer sad, ruthfully penitent concerning the blackbirds, and as thoroughly ashamed of the subject, as the Ancient Mariner must have been of the albatross hung about his neck. Mrs. V.’s remarks appeared, on the contrary, the

rather to cheer and comfort him; and he so far regained his animal spirits as to wink, when she finished, to an attendant robin (presiding, like an Emperor, over his Diet of Worms, hard by), and pointing with his thumb to her retreating form, to murmur, "Poor old runt."

They are good friends, nevertheless, these two fellow-servants; and Sleet and Sunshine, as Miss Mary calls them, enjoy together life's April day. "When the old gal is on the hig," says Grundy,—irreverently alluding to those seasons in which the lady's temper is especially acetose, her observations of the pointed order, and her enunciation so exceedingly nimble, "that," as Schiller said of Madame de Stael, "a man must be all ear to follow her," "when the old gal is on the hig, I never counterdix nothink. Beautiful, says I, as if I were admiring of a pin-wheel; and off she goes, just like one, a blazing, and fizzing, and spluttering, till all her gunpowder and brimstone's burnt out, and she stops as still as a hyster." Artful Joseph! shrewd in thy reticence, as the monk Eustace with Elspeth Glendinning, when he remembered that a woman of the good dame's condition was like a top, which, if you let it spin untouched, must at last come to a pause; but, if you interrupt it by flogging, there is no end to its gyrations!

At an earlier period of their acquaintance, Joseph had essayed by various demonstrations to intimate to Mrs. V. that her monologues were a little tedious, yawning with extended arms, and consulting his watch from time to time in a very anxious and ostentatious manner. Such a watch! After an entire derangement of the owner's vest, a liberal display of brace and button, and some powerful tuggings at a steel chain, out it came from its well, like the diving-bell at the Polytechnic. Mr. Chiswick pretended to covet the case, as "a sweet tank for the Victoria Lily," and affirmed that when Grundy travelled on the rail, his timepiece was charged as extra luggage. But the exhibition of this huge chronometer, displayed and brandished as some intimation that Time was on the wing and precious, by no means produced the effect proposed. "The old mare" (you must really excuse Joseph's stable mind) "began to rear and plunge like anythink; and says I to mysen, this here's a hanimal, which she'll stand no ticklings by whips nor straps, and if you don't give her her 'ed, Joe Grundy, you'll be having her heels through your splashboard!"

If evidence were required to show the prudence of these reflections, and I wished to demonstrate the happy consequences of allowing the old mare her head, I should point triumphantly to the scarlet "Comforter," which, coming through foul weather to the "Six of Spades," Mr. Grundy is wont to wear, and which was wrought expressly for him by the swift needles of Verjuice. Mr. Oldacres never beholds this neckerchief without addressing an inquiry to the Curate (of whom anon, my readers) "whether he is aware that one of the Society has serious thoughts of petitioning Parliament to legalise marriage with grandmothers;" and then he will address the brother in question, and promise him a dish of "the Duke's Potatoes," whenever they are needed for the wedding feast.

But what does he mean by "the Duke's Potatoes?" A good many years ago, when Joseph Grundy first came among us, with horticultural

experiences of a very limited range, he was invited to attend a general meeting of our Floral and Cottage-gardening Association. The proceedings terminated with a supper, and at this supper were handed round some Jerusalem Artichokes, which Mr. Oldacres had kindly sent from the Castle. Now Joseph is a very impartial feeder, accepting all things, (I was compelled on one occasion sternly to reprove a facetious waiter, whom I caught winking at his assistant, as he offered to my friend the sweet pudding-sauce, and watched him pouring it liberally all over his boiled rabbit),—and he now helped himself accordingly. Presently an expression of extreme disrelish passed over his rosy face, and beckoning to the landlord of our village inn, the Gunter of our feast, he asked, disdainfully, to be informed, “Whose swilltub he had robbed o’ them things?” The reply was, that they had come from the Castle, a present from Mr. Oldacres. A momentary surprise and hesitation flitted over Mr. Grundy’s lineaments, and then he spoke bravely, as he ever does, his thoughts:—“Duke or no Duke, if poor ould chap gets no better tatars nor these, he’d be foine and pleased with a Turnip!”

Hence the allusion of Mr. Oldacres. But Joseph is generally ready for him with some amusing rejoinder, and is never indeed to be lightly regarded, as an adversary in jest and banter. There came a stranger to one of our meetings, I forget by whom introduced, and who must have possessed, if phrenology be true, so large an organ of self-esteem as considerably to perplex his hatter. This gentleman was pleased during the evening to turn his attention to Joseph Grundy, and, rightly inferring from his appearance that he was not a highly scientific gardener, to inquire, in ridicule, “What Orchids he thought of exhibiting at the next Crystal Palace Show?” J. G. took four long pulls at his pipe, and then answered very meekly, “I have n’t no Orchids, if you please, Sir, and I’m not much of a shower; but I think I know what prize you’ll win, Sir.” “Indeed,” said our visitor, evidently pleased with the notion that his fame as a florist was known to us all, “and which may that be?” “Well,” said Joseph, “thou’lt be first i’ Cockscombs, and thou’lt not be very far behind i’ Greens.”

And now that I have brought Spade No. 4 in safety back to our club-room, let me express the hope that he has not wearied you; and let me introduce you to his Reverence, the Curate.

S. R. H.

EARLY GRAPES.

THE nearly entire failure of the early Grape crop this season will go far to teach gardeners a practical lesson, demonstrating the uncertainty of producing a crop of early Grapes in March and April from old Vines and outside borders; and as, according to the general practice of fruiting Vines in pots, whereby a fresh supply of fruiting plants is required yearly, pot growing is not at all an economical system, whatever other advantages it may possess, I determined some years back to see how long I could fruit my Vines so as to *pay*, in the same pot; and having succeeded much better than I anticipated,

I beg briefly to state my practice. My first step was to take the plants intended for the following year's fruiting in August, and shift them from 12-inch pots into 18-inch, or nearly that size. Part were placed in 18-inch square boxes, allowing them to grow on the rest of the season, by which time the pots, &c., were filled with roots. Nothing different from the ordinary routine of forcing is practised, but we are scrupulously careful of the foliage; and when the fruit is cut, we allow the Vines to remain a few weeks in the house, keeping them free from insects, and the leaves clean and healthy by syringing; giving rich manure water to the roots. By these means, the wood (taking the Grapes to be all cut by the beginning of May) is well ripened, when by the middle of the month, the boxes are taken from the house, and placed against a south wall, or rather a low south paling. Here they remain till the end of August, when we lift them to a north wall for wintering. I never attempt to keep the tubs or pots dry during their wintering, as is recommended, but allow all the rain which falls on them to do so. By the end of October, we place the Vines in a dung pit, to swell their buds; and in November, introduce them to their fruiting house, having in October pruned the wood back to good prominent eyes, without caring whether the spurs are one or three inches in length. I find these Vines break much more freely the second year than the first, and produce more regular bunches, and much better swelled berries, ripening in March, or about a month earlier than in the first season. We remove a little of the surface soil, and dress with fresh compost when first placed in the fruiting house, and at the same time place a good thick turf under each pot; the roots soon protrude into this, and as the drainage from the pot keeps it moist, I have no doubt that the fruit obtains a great deal of support from the new active roots formed in the turf. The Vines generally make as clean wood and good foliage the second year as the first, and my Vines produce on an average 9 or 10 half-pound bunches of first-class Grapes from each Vine; and this, at the end of March, is no bad work. As the Vines cannot be removed from the house with safety before the middle or end of May, I give all the air I can after the Grapes are ripe, and after they are cut syringe the Vines daily to keep the foliage clean. The house is useful from the time the Grapes are cut to the end of May, for holding large vase Geraniums and other plants employed in the flower garden; and when the plants are all cleared out, makes a capital house for specimen Fuchsias, Balsams, and afterwards for Chrysanthemums, until required for the Vines again. I must here notice, that when removed from the house, the roots sent into the turf are cut clean away to the hole at the bottom of the pot, and that, when out of doors, manure water is given throughout the summer. The practice for the third season is precisely as for the previous year. Generally speaking, the bunches are hardly so fine, but by pruning only to large plump buds, we are certain of a crop of good quality, which always colours well, and is free from shanking. We top dress, and place a turf or two again under the pots when placing the Vines in the fruiting house, as before, which is very soon filled with active roots. The Sweetwater, Muscadine, Chasselas Musqué, and Frontignan, are generally worn out by the third year, and are not worth further trial, but occasionally

Hamburgs will last four and even five years; but in these cases, a good deal of the old soil must be taken from the roots, and though interesting as an experiment, I do not advocate keeping the plants beyond the third year. If any of your readers who are short of room for growing plants every year for fruiting will try this system, they will not regret it, and will no doubt continue it as I have done.

J. M. D.

SEVERITY OF THE WINTER, AND A FEW OTHER THINGS.

WE have indeed had a severe winter, and, judging by my correspondents in England and France, great mischief has been done to Roses and Strawberries. The damage done to the latter cannot yet be known, as the cutting down of foliage is no criterion. If the crowns and roots are not injured, the marred foliage matters not. As I viewed the effects of winter, I thought of the beautiful and hopeful words of Cowper—

“But let the months go round, a few short months,
And all shall be restored. These naked shoots
Barren as lances, among which the whistling wind
Makes wintry waste, sighing as it goes,
Shall put their foliage on again;
And more aspiring, and with ampler spread,
Shall boast new charms, and more than they have lost,
Shall publish even to the casual eye
Their family and kind!”

This hopeful time is now fast approaching. Peach and Nectarine trees are in most beautiful bloom; Roses are sending out their foliage, and the new leaves of Strawberries are emerging from their deep mulching, and seem to say there is a “good time coming.” Among vegetables of the Brassica tribe, nothing could do better than the Savoy Cabbage, which has amply served me all winter; Bath Greens have triumphantly withstood the severity of winter, and are beginning to sprout; but of 10 ranks of Wheeler’s Imperial Cabbage I have saved enough to make four ranks of forward Cabbage; all Broccoli and Cauliflowers died early in winter. People will be taught by these lessons the value of hardihood and constitution as regards vegetables, fruit trees, fruit plants, and flowers. Of what avail are any of these if they have not constitution enough to stand our climate in winter. There is, round here, a great call for Cabbage plants, which are selling at 1s. per 100, and it is difficult to get them even at this price. Those who have Savoys should manure the stumps of those that have been cut; they will then, with Bath Greens and Turnip-tops, which are excellent, hold them on some time. If the ground is manured all over, Potatoes may be dibbled in between the Savoy ranks, and the stumps may be removed where the Potatoes are earthed up. The Potatoes last year were much blighted, and many of the tubers were spoiled; but I am happy to say that a great many are good, especially Salmon Kidneys, which are among the best of Potatoes; the earliest sorts, and the early planted, invariably suffer least from blight; they get ripe before the blight sets in. I think it far better to dung the ground in winter, and

well mix it by turning, than to put the dung upon the Potato when planted. The great advantage of early planting is this:—That the tuber is not weakened in constitution by growing out, and further, if the tops are cut down by spring frosts, which will probably be the case, still the plant extends its roots; and the effect is, that you get as many Potatoes in number, though not so large as they would have been if unchecked; and they are more likely to be sound, because more ripe when the blight sets in. The only Potato here, cut by the blight, that showed no disease in the tubers, was given to me by a blind man, who called it the “rough red,” a white Potato, tinged about its deep eyes with pink; it is a good late eating Potato. I have planted the Dalmahoy and Prizetaker with several other sorts, and as far as appearance goes, I like them much; they both cut sound and firm. Flukes, Breadfruits, and Fortyolds, are excellent Potatoes for a gentleman’s table; for poor people, who have many mouths to fill, the Early Dugdale is best. The Red Ashleaf is also a good Potato, and was sent to me as one that would resist the blight, but it was more affected than any other here; it is a very heavy cropper, very good looking, and large. I gave it with the Guernsey Blue and “rough red” to Mr. Gloede to take to France. To eat early, and till new Potatoes arrive, I know nothing equal to Salmon Kidneys; they are firm and yet mealy; they are also perfectly good up to the time of new Potatoes. The best way to protect Ashleafs is to cover them with troughs, like the roof of a house, raising them at both ends with bricks, as the stalks grow; keep them dry, and no frost will hurt them; earthing them also day by day, when the weather is severe, is also a great help. All mine, this spring, were planted the first week in March. I have always observed that the blight seizes the Potatoes after the heavy July rains. It is, therefore, my aim to get them ripe as soon as possible. The wet, no doubt, produces the development of the pre-existent disease. In one word, early sorts, early planting, and hastening them to maturity, is your best chance. Late sorts, or late planted Potatoes, if the disease seizes them, or is developed in them, are neither fit for food or seed. I am determined this year to force my Potatoes on in the drought of early summer by watering. Some ranks in each plot I shall leave unwatered, or the trial may be worth nothing. I shall, moreover, dust some of them well with soot. If I see any advantage, I will report thereon; but—

“Britannia’s emblem is the Rose,
There is no other flower
Hath half the beauties that adorn
This beauty of the bower.”

Let me mention a curious thing here with regard to Isabella Gray; covered only over her roots with tiles she has retained the whole of last year’s foliage; she is in the angle of a north-west wall, and faces south-east. All the Teas, covered only over their roots with tiles or glass, have wintered perfectly well; it is more essential to cover their roots and keep them perfectly dry than to cover their heads. Where the tiles and glass were, you could, in the hardest frost, thrust your finger into the ground easily; whereas, beyond them, you could make no impression with an iron bar. The Tea Roses were Adam, Bougère,

Devoniensis, Eliza Sauvage, and Souvenir d'un Ami; these were on their own roots. The following were on short Briars:—Comte de Paris, Sombreuil, M. Maurin, and M. Bravy; they are all transcendent Roses. The last is not far from the best white autumnal; she is said not to bloom out of doors; she bloomed well five Roses in her first series, 23 in her second series, and was covered with buds in September, when the adverse weather set in. I could not, you see, finish without a word about Roses, for—

“It lightens and brightens
The tenebrific scene,
To meet with and greet with
This most delightful theme.”

March 26.

W. F. RADCLYFFE.

EVERGREENS IN FLOWER GARDENS.

IF the present fashion of planting flower gardens is persisted in much longer, all our grand British gardens will be so much alike that it will be a mere toss up which is the best worth seeing. As it is, we judge gardens now by a very different standard from what existed 20 years back. The rarest exotic trees and shrubs, the richest collection of plants, or the highest degree of cultivation, go now almost for nothing with our modern ideas; and the comparative standard of excellence is really this:—How many thousand pots of bedding plants do they turn out, as if the entire beauty and interest of a place depended on so many hundred feet more or less of ribbon border, or on two or three thousand Geraniums or Verbenas systematically pitted against each other. This mode of comparing places with each other reminds one of the announcement very seriously made by guides to cathedrals and large show-houses to their visitors, that the buildings contain exactly so many doors and windows, a point of so much importance in their estimation that the grandeur and associations of the edifice are insignificant in comparison. Now, with all deference to the admirers of modern flower gardening, who are so much in love with strong colouring, we must express an opinion that there is a wide field for improvement in this particular line of garden decoration; and that this taste for multiplying masses of colours at the expense of every other feature of landscape gardening is neither based on sound principles, nor yet justified by any authority of recognised talent. The question is an important one, and we moot it by way of discussion, being fully persuaded ourselves that a more general introduction of certain classes of evergreens as elements in the composition of geometrical gardens, not only as giving effect to the general design, but as neutralising glaring colours, and we may add of giving a higher finish and a more permanent character to this style of gardens than they at present possess, would be much preferable, more particularly when not filled with plants. It may be considered by some of our readers that we are carrying our ideas quite as far in one direction as the taste we are criticising goes in the other, that, in fact, we are retrograding and going back to the times of

La Notre and the "Grande Monarque" instead of progressing with the age. We are willing to admit that this is true to some extent, and that we are going back to the oldest and purest style of geometrical gardening. But we wish only to graft the improved materials which are now furnished us in the shape of new evergreens and flowering plants on the elaborate "arabesques" and beautiful scroll-work of the old masters; in fact, to combine the interest and beauty of modern results in gardening with that perfectness of pattern and rich elaborateness of design, which characterised the school of La Notre.

We speak advisedly when we say that very many of our most celebrated gardens, and with them we shall class those of the Crystal Palace, are laid out with no leading principle of design in their composition. They are, to speak plainly, composed of miscellaneous aggregations of parts, frequently at variance with each other, and very rarely presenting a unity of composition, taking even each part by itself. We do not condemn this arrangement so much as we do the after-management, or planting, on which point nearly every garden we inspect appears to us to be degenerating into a mere formality—a repetition over and over again of the same system and the same plants. We regret this the more as we frequently have witnessed marked and distinctive features about places which, if taken advantage of, might have been converted into scenes individually interesting, and appropriate to the situation.

We have stated already how much the taste for excessive flower-colouring has increased of late years—we fear at the expense of more really important objects. How interesting in our young days used to be a visit to Woburn, to look over the various collections of plants, hardy and exotic, for which it was then famous; or to Wentworth, to see Mr. Cooper's Orchids and Scitamineæ, to say nothing of the kitchen garden; or to magnificent Chatsworth (thanks to Sir J. Paxton, we hear that this place is not modernised yet), with its giant conservatory, its Lily house, Orchid houses, and, above all, its carefully arranged arboretum and conservative wall. Then there was Syon, when Forrest maintained a style of keeping most admirably adapted to the place. At the present time the arboretum at Bicton is worth a journey from London into Devonshire to see, planted by Glendinning before flower-gardening, as it is now, had absorbed every thought; it is the great feature of the place and county. Let us ask what comparison can be drawn between a modern flower garden and the interesting and unique collection of plants which occupy the grounds at Abbotsbury Castle on the Dorset coast (which affords a striking evidence of what may be done by taking advantage of peculiar localities), or let us take the Coniferæ at Bayfordbury, or the general collection of evergreens at Elvaston, where we hardly know which to admire most, the beauty of the plants or the artistic skill which arranged them. Thanks to some proprietors, there remain many places where other things beside Calceolarias and scarlet Geraniums are cared for. The grand banks of American plants at Tottenham Park and Highclere are not yet grubbed up to make room for Verbena beds, and we hope will long remain, as worthy

the hands that planted them and the sites which they so magnificently adorn.

We understand that the first landscape gardener of the day is much averse to over-floral decoration, and that, taking advantage of the many suitable forms of evergreens for decorating geometrical gardens, he is employing them more largely on every occasion, not only as architectural trees, but extensively for scroll patterns, as well as more simple figures. We therefore hope to see, at Kensington Gore, good examples in this style of art, by the gentleman we allude to—Mr. Nesfield.

It is a necessary principle in geometrical gardening, that, however elaborate the design, each figure of it, and each member of the figure, should be clearly defined. The importance of this was well understood by the originators of the style, and the beautiful arabesque patterns and embroidery work usually planted out in dwarf Box, was surrounded by coloured gravel, to contrast with, and bring out the figures in relief. The introduction of variously shaded evergreens will at the present time admit of several combinations of colours, which may be worked into the design, so as to produce the richest effect, and these again may be relieved by edging the figures of the pattern with flowering plants to contrast, just as La Notre relieved his figures with different coloured gravel.

For large figures and scrolls, where the centre lines will be from 18 to 36 inches in height, the common Yew and tree Box will still be the most useful plants for the purpose, presenting two distinct shades of green. Both these may be relieved by edging them with the variegated kinds of each species. Thus, take the common Yew for a centre, then a band on each side of it of the best variety of gold-striped Yew, edging off with the paler coloured silver-striped variety, and you have a band which, when carried out through all the intricacies of a scroll or arabesque pattern, will give an effect of the richest description; and by leaving a margin round the outside for an edging of variegated Geraniums, themselves to be edged with the blue Lobelia, and one of the most pleasing combinations of colour is the result. If only the common Yew is employed, the scarlet and rose-coloured Geranium would suit better, but we have no room for close particulars. The gold and silver-striped Box would shade off the common Box and its varieties with self coloured leaves. Another very beautiful scroll plant, of the richest golden variegation, is the *Chamæcyparis variegata*, and one easily kept into shape by pruning. The golden Thuja is another plant which could be worked up with the best effect; the striped Hollies present us with several variations of colour, all valuable for this purpose. We may mention the variegated and self-leaved *Euonymus*, the common Savin and *J. tamariscifolia* and its variegated ally. The common Juniper forms a beautiful plant for bordering, but it should be trained. We need not allude to the common and Colchis Laurel, the Phillyrea, and several other plants, which will be called for, when once public taste leads in this direction.

The introduction of clipped evergreens for carrying out elaborate designs in garden patterns, would have a charming effect in winter,

when ordinary flower gardens are naked, or at best with the beds promiscuously filled with dwarf shrubs, which never look satisfactory, and would present a no less pleasing combination of colour during the summer season, with the outline of the figures tastefully relieved by flowers.

TAXUS.

CULTURE OF THE VINE IN THE SOUTH OF IRELAND.

AT a late meeting of the Royal Dublin Society, the following interesting paper was read by J. Knight Boswell, Esq., chairman of the horticultural committee.

The Vine (*Vitis vinifera*) has a biography more ancient than the famed Cedar of Lebanon, or the Fig tree under the shade of which sat the fathers of eastern nations. The earliest records which we have of husbandry treat of it: "And Noah began to be a husbandman, and planted a vineyard."

It is a native of the east, and is supposed to have come from the mountains on the borders of the Caspian Sea, where it is indigenous.

Wine, the fermented juice of the Grape, is also of very ancient date, and was among the first oblations to the Divinity. Herodotus tells us that the Persians were very much addicted to its use. In the Homeric days mention is made of the wines of Thrace being mixed with honey. The Greeks and Romans used salt water with their wine, and flavoured it with resin and pitch, it being also necessary to dilute it largely with water, it having been thickened by heat. We make port wine with the assistance of logwood. The ancients were aware that rich, unctuous lands were unfavourable to the production of good wine—they chose light, porous soils, with an admixture of gravel and a substratum of rocky debris. They were also aware that wine produced on the slopes of dry hills was superior to the growth of the plains. The elder Cato, in his work on the Vine, says an extensive fertility is injurious to it, and that all that is subtracted from the wood is added to the fruit. The ancients as a rule never permitted the Vine to bear fruit until seven years old, the doctrine being that the Vine would perish if allowed to do so sooner. Pliny the naturalist enters very fully into the cultivation of the Vine, and among much that is puerile and superstitious, we glean some useful information. He tells us the earlier the Vine is pruned the greater is the quantity of wood, and the later the pruning the more abundant is the fruit. Nearly all modes of out-door culture, as practised by moderns, were known to the ancients, with the exception of house culture, which is a modern invention. The Vine was sometimes permitted to grow to man's height, and supported by props: it also took the form of a stunted stem, standing of itself. In Africa it was trailed along the ground; but the principal and most approved method was to train the Vine to Poplars and Elms from 20 to 30 feet high, one tree supporting as many as ten Vines, the pruning and management being often attended with loss of life, the ancients erroneously believing that the best wine was made from the Grape that grew

the highest. It is quite clear that they were ignorant of the circulation of the sap; for Pliny says the middle of the Vine is the driest, and that it was in the summit the generative powers resided, and hence that from the top the grafts were selected. This was a most erroneous idea; because, had they induced the sap to flow equally, by laying the canes on the ground, the eyes would break at the bottom of the plant, and at equal distances throughout the stem, ripening the fruit earlier and giving better berries, being nearer the soil. Propagation was carried out by cuttings, layering, and grafting; but the most favourite mode, particularly in Greece and the eastern provinces of Rome, was growing from layers in baskets, set upon stages of the tree which supported the Vine, its height protecting it from the ravages of cattle. The ancients believed that the best wine was produced from the oldest Vine, and almost invariably mixed with the must, during fermentation, resin and pitch, which is still the practice in some parts of Greece. Pliny was of opinion that, as a general rule, a southern aspect should be preferred—this, however, depends on the climate. He says, in Africa, a northern aspect was the better one, showing that men then knew that a hot and glaring sun was injurious to the Grape.

The Vine was brought into England by the Romans, and to our Saxon forefathers we are indebted for its extensive cultivation, for the production of wine, which lasted for several centuries, almost every castle and monastery in England, even in later years, having a vineyard, producing many tuns of wine annually. William of Malmsbury informs us, that in his day wine was made in the Valley of Gloucester little inferior to that of France. Mention is made in Domesday Book of the vineyards, and the serfs who were attached to them, and handed over like so many cattle. Within the last century a wine resembling Burgundy was made from the vineyard of Arundel Castle, in Sussex, and to the present day wine is made in small quantities by families for domestic use, from old Vines growing against a wall.

The wine made from Grapes formerly grown in some of the vineyards in the south of England is said to have resembled those of France; but since the days of Elizabeth, from improved tillage and the introduction of ale, the manufacture of wine from the Grape fell into disuse, as also its importation for general consumption, and the hop gardens of Kent superseded the vineyards. However, it is not improbable but that another revolution may ere long take place, and wine, under the new commercial convention with France, again become an article of general consumption—superseding the deadly distillation of sugar and of grain, and wiping from English life the degrading stain of the gin shop—from Ireland, the curse of whiskey.

The culture of the Grape extends from the west of Europe to the Indus and into China, and is also now extensively cultivated in parts of America; and wine is largely made there for home consumption.

Northern climates, from liability to late frosts in spring, and southern, from excessive heat in autumn, are both unsuited to the growth of the Vine, for wine making. In the northern countries the climate is not sufficiently warm to ripen the Grape, and in very warm southern countries, the excessive heat throws the juice into an acetous fermenta-

tion, before the vinous one has time to be matured, so that in the plains of all very warm countries, such as Malaga, in Spain, the Vine is dried, and, as the well-known raisin, becomes an article of extensive commerce ; while on the adjoining mountains of the Sierra Morena the finest sherry is produced. The climate essential to the growth of the wine-producing Grape must neither be liable to the late frosts of spring nor the excessive heat of autumn ; for which reason France, the Rhine, parts of Germany, northern Italy, Spain, Portugal, and Greece are all localities in which it flourishes. Professor Mulder informs us that wine is also made in Holland ; but, owing to the damp and cold of the climate, is sometimes attended with difficulties. The cultivation of the Vine, however, in most places, assumes the appearance of a currant or raspberry bush, and is neither a pleasing nor striking object, and only so when we meet it in the sunny and luxuriant land of Italy, where its trellised and graceful foliage gives shelter from heat in summer, and adds a charm to the surrounding scenery.

The slopes of hills, face of crags and rocks, and dry, undulating grounds, sheltered from the cold winds, reflecting the heat, and where the soil is favourable—such as on the banks of the Rhine—are the best sites for a vineyard, yield the most valuable harvests, and are always selected where available. It is remarkable what a trifling change in aspect or soil affects the quality of the Vine Grape, even in adjoining vineyards.

The vineyards of England occupied the best and richest soil, to the injury and detriment of the Grape ; and when civilization made land valuable for improved husbandry, they gave place to cereal and other crops. Now, in the site pointed out by nature on the unproductive portions of mountains in the south-west of England, where the flora is similar to that of France, we should have had to this day valuable vineyards on what is now unproductive waste mountain—not a crag that would not have been as available as those of the Rhine. The object of this paper is not to induce a party to apply to the purposes of a vineyard any land which may be converted to or used for tillage or pasture, but to make productive that which is already worthless, and which nature points out as the site for the produce of the Vine. I now beg to call your attention to some of the most important features of this paper, having reference to the culture of the Grape in the south of Ireland and south of England, bearing on the temperature and climate. On the south-west of England and south of Ireland, coloured red on the map, the flora includes a number of species not elsewhere seen in the British islands, and is intimately related to the Channel islands and the northern half of France. The theory that the presence of this flora is due to the probability that at some remote epoch of time, England, Ireland, and France were one continent may be true, and if true, does not take from the inference to be drawn, namely, evidence of a climate similar to France, and, therefore, suited to the Vine. The limit of this flora has not extended beyond its original boundary, proving that climate and temperature must have considerable influence on it. This of itself would go some way with the botanist in agreeing with my views. The boundary of the Vine-producing district is about the 50th

degree of north latitude, close to the south of England and Ireland ; the red line indicates it. This rule, though true as regards the continent, is not when applied to England and Ireland, because, being surrounded by water, they possess a greater *equability of temperature* than continental countries lying in the same degree of latitude, and not subject to the intense cold of winter, or of spring and autumn frosts, of these inland countries, thus counterbalancing the difference of latitude between them and the northern Vine-growing countries, such as the vineyards on the Rhine, Moselle, and in the neighbourhood of Nemours and Charleroi.

The Vine is a deciduous plant, and you will find that the habitat of all deciduous plants lies between the 30th and 60th degrees of north latitude, embracing the warmer and colder temperate zones. The isothermals—those lines which mark the mean annual temperature of the globe—give to the south-west of England and to one half of Ireland a mean of annual temperature similar to that of France, the Rhine, and northern Italy. The countries between the two undulating black lines all have the same mean of annual temperature, but the isotherms of summer and winter are different. I mentioned in the early part of this paper that the Vine came from the borders of the Caspian Sea. It is a remarkable fact that the mean annual temperature of a considerable portion of this country is the same as the southern half of Ireland. The Vine is to be found growing on the sides of the Caucasian mountains, and among the steppes on the borders of the Caspian, luxuriating among wild and inaccessible rocks margining this sea. In July the heat of summer on the plain at the Caspian Sea is the same as at the south of Spain and Italy, and, therefore, we find the Vine on the mountain slopes, where the temperature is cooled by the altitude and by the winds, tempered with moisture from this immense inland sea, corresponding very much in character to that of the south of Ireland, warmed as it is by the influence of the gulf stream.

The gulf stream which flows along the southern coast of Ireland exerts a great influence on its temperature, and perhaps to it may be attributed much of the warmth of this coast, particularly in winter and spring ; the Grape ripening in gardens at Cork on a wall with a southern aspect.

In considering the humidity of our climate, it becomes necessary to refer to the quantity of rain which falls in Ireland during the year. The fall of rain in Dublin is 30 inches ; in Cork and Waterford, 36 ; in Bantry, 40 ; in Killarney, 59 ; in Plymouth, England, 36. Thus giving the same quantity of rain to the most favourable part of the south of England as to Cork and Waterford.

An important consideration in the growth of the Vine in our humid climate is its means of fructification ; it is one of the flowering plants, and is known to the phytologist as a *perfect plant*, having its stamens and pistils in the same flower. The pollen from the stamen is thus easily shaken by the wind or insects on the pistil. So there is no difficulty in the Vine in moist countries perfecting its fruit. The Hop, which grows so like the Vine, belongs to another class. It is polygamous in its nature, one plant having the stamens only, while another has pistils only, and for this reason would not, perhaps, be suited to our moist climate.

In the American species of the Vine, it partakes of the same character as the Hop plant, being also polygamous. A similar remarkable character has been observed in the Strawberry plant also in America. In the physiology of botany there is no part of the science more interesting than the modes by which plants perfect their flowers, adapting themselves to their peculiar situations; evidencing throughout the design and hand of the Creator. A limestone, gravelly substratum, clay, combined with sand, lime, and crushed bones or phosphates, form the best soil for a vineyard, the rootlets of the Vine delighting in light, friable, and porous soils. It must be well trenched and drained. In reference to the quality of soils, we have, on the authority of French chemists, that Burgundy wine owes its character to a clayey soil, combined with lime; Medoc to a sandy soil; Champagne from soil where lime predominates; and Hermitage from a granite soil.

Strong or stimulating manure is most dangerous to the vinous property of the Grape. The general rule in wine-producing countries is to manure only with its own cuttings, or the refuse of the Grape when pressed, which contain tartar, essential to the vinous property of the Grape. Excessive richness of the soil, though it gives a larger crop, and the best fruit for the table, detracts from the character of the wine. There have been several remarkable instances of this fact; amongst others, the celebrated vineyard of Johannisberg, which some fifty years since having been richly manured, it for several years afterwards produced a Grape which gave wine of an inferior character, and much deteriorated in quality. It took twenty years before the soil became sufficiently poor to restore the vinous quality of the Grape. Soils which produce choice and rare wines are never manured with any description of foetid manure, generally applied for the purpose of fertilising land; but wool, horn, bones, and the cuttings and refuse of the Vine itself, being only used. The scientific botanist tells us that the Vine only takes up from the earth carbonic acid, ammonia, &c.: practice and experience, both ancient and modern, affirm the contrary.

The chemical properties which the soil should possess for the culture of the Vine is an important consideration. The principal constituents of the Grape are the tartaric acid, derived from potash in the soil; saccharine, obtained from phosphates, and converted by fermentation into alcohol. It is for this reason that bones deprived by heat of fat, consisting principally of phosphate of lime, exert such a beneficial influence on the growth of the plant, in the development and formation of the seed and fruit; and, therefore, in all Vine borders, and in potted Vines, bone dust is largely used.

Phosphates *fatten* the Grape; potash gives tartar, which produces the vinous property, so essential to the production of good wine; and for this reason it is that the leaves and cuttings of the Vine, which contain tartar, are the best manure for the Grapes intended for wine. In warm countries the quantity of tartaric acid is insignificant, and in cold ones the saccharine is proportionably small; thus, wine made from Grapes in Spain contains more alcohol, and is stronger than that of France, and the wines of France stronger than those of the Rhine. The Rhine wines contain but little alcohol; but *tartaric acid* is largely present,

and they are, therefore, more acid than those of France or Spain, but are not so intoxicating. The presence of alcohol in wine is essential, because wine will not keep without a proportion either of alcohol or of another substance, termed *tannic acid*. Tannic acid is created, during fermentation, from the skin, stones, and green stalk; it is for this reason that where alcohol is wanting, Grapes are pulled while the stalk is green, for the purpose of extracting, by fermentation, the tannic acid. The general rule for gathering the vintage is when the stalk is turning brown. If the coldness of our climate should cause an undue amount of tartaric acid, the addition of sugar would correct the acid and create alcohol. The object of the grower here would be to mature the vinous property of the Grape. Before the Grape becomes ripe it contains a large proportion of tartaric acid, which decreases as it ripens, and the saccharine increases in quantity.

The fruit of the Vine depends on climate, atmospheric influence, and light, as well as soil. Take the Grapes of any one Vine—leave one bunch open to the influence of a very hot sun, by removing the leaves; permit another bunch to be protected by the leaves; cover another with a bell of clear glass; one other with dark glass or oiled paper, and you will find a graduated improvement; the Grape by the latter mode being a finer scented fruit than by the previous modes. It thus appears that a hot sun is not only injurious to the vinous property of the Grape, but also to its aroma, it always ripening better under the leaf; and as the black Grape ripens earlier, its culture in this country is recommended. The soil in some vineyards requires to be constantly renewed. We may easily conceive how soon the Vine, planted in some of the artificial beds made in crags and fissures of the Rhine mountains, and similar localities, absorbs all the nourishment from the poor soil which feeds it, which obliges the grower to give a fresh supply when required. Many vineyards are so rich that they do not require the soil to be renewed; and some in France are in the same condition they were in centuries ago, as may be seen in the neighbourhood of Toulouse and Bordeaux. I have seen luxuriant Vines of a very advanced age in some of the rich soil margining the lake of Como; while high on the mountain they were of a stunted growth. In reference to the age of the Vine, we have the authority of Pliny and Strabo that Vines in their time attained upwards of 500 years of age, and were sawn into planks for domestic purposes. In the city of Populonium there was a statue of Jupiter formed of the trunk of a single Vine, which for ages remained proof against all decay. The celebrated Vine of Hampton Court bears evidence of the age to which the Vine retains its productive powers, furnishing upwards of two thousand bunches annually.

A change is gradually taking place in the culture and management of the Vine, many growers turning their attention to produce, and not quality; the modern introduction of manuring, by giving a much larger return, being found to pay the grower better than the old system. For choice and rare wines, this remark, however, does not apply. The rule for the culture of the Vine for fruit produce is the reverse of that for wine growth. In the case of fruit only, a large supply of manure is necessary to fatten the grape. Several varieties of the black Grape and

many of the white varieties are recommended for open air culture. The white is the sweeter Grape, and is largely grown in the south of England, where one may see the Vine trained in front of the houses, and the bunches sometimes covered with paper cones. This Grape resembles much those of Fontainebleau. The Vine is of all plants the most manageable: it may be grown in the open air against a wall, with a southern aspect, or, like the Raspberry, in what is termed bush culture, or trained along the ground. It will, in fact, assume any form or shape the grower desires. The vineyard, if not planted against the face of a rock, may be against dwarf walls made from stones, collected in the clearing of the land. Grapes grown on the bush are larger, ripen better, and are protected from hail and rain by the leaves. The reason for their ripening sooner by this mode of culture is, the sun's heat is reflected from the ground, and this heat is partially contained in the soil during the night, and keeps the plant warm, thereby pushing it into quicker growth. Lakes should be avoided in our humid climate, and too close a proximity to the sea. Some 1500 years since, France, then known as Gaul, was subject to heavy falls of snow, and the Seine frozen over to a great depth, presenting the same appearances as Russia does the present day. Such was the climate of Gaul and the Rhine when the Romans planted their vineyards there. Since then, the clearing away of forests and draining of lands in Germany has made the climate warm and genial. May we not fairly assume that the present temperature of the south of Ireland is as well adapted to the culture of the Grape as the Rhine and France were when planted by the Romans. What advantage, either, did or does the Rhine possess to the south of Ireland? In parts of the Rhine the common sorts of wine are harsh and unpalatable: one gives you the idea of a wild cat scampering down your throat, and the other pulling it up by the tail; while, on the contrary, the wines made in the south of England were mild, and resembled those of France. Why is it that in past ages no efforts have been made to establish vineyards in the south of Ireland? The solution is to be found in the unhappy history of this country. The Rhine and Gaul, being Roman provinces, were well protected. Ireland had no government powerful enough to secure to the grower a return for his industry, and the country has had no chance until within the last ten years. I have no doubt but that the hardy kinds of Vine might be cultivated on the sheltered and southern slopes at the base of some of the mountains in the south of Ireland, where the heat, reflected from the rocks, will considerably aid the ripening of the fruit; and in this respect the locality has greater advantages than the level and flat plains of England. We have the best evidence of the mildness of the climate from the fact of early Peas, Strawberries, and Potatoes being sent thence to the Dublin market long before they are produced by the market gardeners here; no doubt, partially pushed into early growth by the soft winds which pass over the gulf stream washing the southern coast. Some persons may brand my proposition as visionary, and assert it to be impossible. In the lexicon of life there should be no such word as impossible. The experiment is inexpensive—the benefit resulting from success, immense.

HORTICULTURAL SOCIETY'S VEGETABLE COMMITTEE.

THE steps taken by this Committee in collecting every kind of vegetable seed for trial at Chiswick is one of the most important acts the Society ever undertook. It is easy to foresee that when their report is published, a great number of names which now figure in the lists of seedlings must be erased, having turned out either synonyms of some other varieties, or inferior in some respect or other. We feel every confidence that the trials will be most correctly and fairly carried out, and that the analysis of the respective merits of each kind under trial will be accurately given. The Secretary of the Committee is a gentleman in every respect qualified to draw up the reports with the care and judgment requisite for so important an undertaking, on which will depend in a great measure the commercial value of garden seeds, amounting in the aggregate to a very large sum. We are of opinion that when once this report is embodied and published the trade should make it their text book as regards vegetable nomenclature, which would go very far indeed to prevent confusion in future, if adhered to. We have very frequently stated that the great numbers of varieties of vegetables which now swell our lists have resulted in the fastidiousness of purchasers, as their retention on the lists incurs additional expense and trouble to the vendors, as there is a much greater profit in growing large bulks of one kind of seed than so many smaller parcels; and therefore the trade would profit greatly by the number of kinds of seeds being reduced. The benefit which will arise to amateurs and non-practical gardeners will be very great indeed, as we apprehend it will be one part of the report to describe concisely the respective merits of each article proved, as to hardiness, lateness, &c., &c., information which would be invaluable to the class alluded to; and as the Committee will have to pronounce an opinion on all new garden produce submitted to it, there will be less fear of any spurious, or old articles with a new name, getting circulation in future.

ROSE PRESIDENT.

YOUR reporter (see page 113), alluding to this Rose, says, "It did not seem to have much novelty in it, and certainly is not superior to Madame Willermoz." We quite agree in the latter remark, as, in our opinion, there is no Tea-scented Rose superior to Madame Willermoz; but it might have been added,—it is entirely distinct from that variety. President is rosy salmon, Madame Willermoz is cream colour. As President received first-class awards from the Horticultural Society of London and the Royal Botanic Society, in March last, we venture to think the notice of it in your *Florist* of last month does not fairly place the flower before the public.

Cheshunt Nurseries.

A. PAUL & SON.

[By comparing President with Madame Willermoz we thought we were paying it a compliment; that it is a good Rose we feel assured, and we certainly had no wish to detract from its merits.]

ROYAL BOTANIC SOCIETY.

A SECOND spring meeting took place on April 4. The following were some of the principal subjects of exhibition. New Plants.—First Class Certificate to Mr. Turner for *Cineraria Reynolds Hole*; also a First Class Certificate for *Rhododendron ciliatum grandiflorum*. The same exhibitor likewise had a First Class Certificate for Variegated *Pelargonium Flower of Spring*, an improved Flower of the Day. Second Class Certificate to Mr. Wiggins, Isleworth, for *Cineraria Bridesmaid*. Second Class Certificate to Messrs. Dobson, Isleworth, for *Cineraria Mr. Marnock*. Second Class Certificate to G. W. Hoyle, Esq., Reading, for *Pelargonium Reading Volunteer*. Second Class Certificate to Mr. Turner, for *Cineraria Darling*. There were also exhibited in this class the following subjects:—From Mr. Holland, Hounslow, for *Cineraria Mrs. Murray*, also *Cineraria Fredleyana*. From Mr. Wiggins, *Cineraria The Bride*, also *Ringleader* and *marginata*. From Messrs. Dobson *Cinerarias Lurline*, *Beauty*, *Hyperion*, *Rifleman*, *Almira*, *Rough Diamond*, *Masterpiece*, and *Amy*. From Messrs. Smith, Dulwich, came *Cinerarias Magnum Bonum*, *Admiral of the Blue*, *Glory of Dulwich*, *King of Crimson*, and *Tyrian Prince*. Collections of miscellaneous and fine-foliaged plants, *Pelargoniums*, *Hyacinths*, *Auriculas*, and other subjects, were also contributed in good condition. Messrs. A. Henderson & Co., Pine-apple Nursery, exhibited, not for competition, a fine collection of *Hyacinths*. Among the latter, *Anna Carolina* was conspicuous as a clear yellow; and *Cœur Blanc* was remarkable for its white eye, in which it resembles *Argus*; *Agnes*, *Amy Appelius*, and *Queen Victoria Alexandrina*, were attractive deep red kinds.

At a third spring meeting of this Society, which took place on April 25, the following subjects were exhibited, viz.: New plants.—First-class certificate to Mr. Turner, for *Auricula Volunteer*, a fine self-coloured variety of vigorous growth, with bold flat flowers, deep mulberry purple, with pure, even, and well-proportioned paste. Also a second-class Certificate to Mr. Turner, for *Cineraria Duke of Cambridge*, a dwarf, free-blooming, rich self-coloured variety of moderate size, the flowers of a deep bright purplish crimson. In this class there was also exhibited:—From Messrs. Ivery, Dorking, *Azalea tricolor*, a large showy variety, with tolerably well-formed flowers, white, with broad flakes and narrower streaks and flakes of bright carmine, and having other markings of faint blush—it was a good decorative sort, and probably constant; also *Azalea Leviathan*, a semi-double white, and another sportive sort, producing very dissimilar flowers. From Mr. Todman came *Azalea Clapham Hero*, a light purplish rose of tolerable form, but without conspicuous spotting. From Mr. Young, Highgate, *Begonia Marthallii*, one of the choicer varieties of *Begonia Rex*. From Mr. Turner *Cinerarias Miss Marnock*, *Queen Victoria*, *Solferino*, and *Constancy*; and Variegated *Pelargonium Flower of Spring*. From Messrs. Dobson & Sons, *Cinerarias Masterpiece* and *Beauty*. From Messrs. J. & J. Fraser came *Roses Madame Boll* and *Victor Verdier*. Several collections of miscellaneous plants, *Azaleas*, *Hyacinths*, and *Auriculas*, were also contributed, making on the whole a highly interesting meeting.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—Azaleas, if wanted in the best possible condition, should, before they begin to open their flowers, be placed where they can be afforded a moist rather warm atmosphere, carefully shading them from the sun, syringing them overhead morning and evening, and shutting up the house early on the afternoons of bright days; and as any excess of dryness at the root at this stage would tend to cause the blooms to be small and crumpled, the plants must be carefully and rather liberally supplied with water. When fairly in bloom, gradually inure them to a free circulation of air for a few days before removing them to the show-house, and then use every care to shade them from the sun, and to keep the atmosphere moist. Get plants that have bloomed repotted where necessary, the shoots nicely tied out, stopping any that incline to grow too strong for the others. Also stop and carefully regulate the shoots of young specimens of new varieties, and see that the whole stock is perfectly clear of their great enemy black thrips; for if this pest is allowed to gain a footing upon any of the plants thus early in the season it will be apt to greatly injure the plants. Attend to last Calendar's directions as to Camellias. Encourage those making their growth with a moist warm atmosphere, shading them from the sun, and keeping the foliage clean and free from insects. Plants that were started into growth early will probably be setting their buds towards the end of the month, and these had better be removed to a shady situation out of doors, or a cool house, to prevent their making a second growth. *Conservatory.*—There will be a plentiful supply of plants at command for the decoration of this house during this month, but do not overcrowd to the extent of injuring any of the permanent specimens, and use as much care in the placing of the plants in bloom as if they were scarce, and endeavour to produce the best possible effect with the abundance of materials at command. Ventilate freely during warm weather, but avoid cold draughts, especially against things that have been brought from the stove; and use every care to maintain a moist atmosphere, keeping the beds and borders well watered, and frequently sprinkling every available surface. Also keep a sharp look out for insects, and if red spider is perceived upon any of the permanent specimens, give these a thorough washing with the engine or syringe; and apply gentle doses of tobacco smoke as often as may be necessary, to keep aphids and thrips in check, taking care to have the house as dry as possible before smoking; and if only a few plants, which can be moved, are infested, these had better be removed to some other house or close room, so as to avoid the risk of injuring things in bloom, and the certainty of rendering the atmosphere of the house unpleasant for days by smoking. See that every possible effort is used early in the month for providing a supply of plants for blooming here throughout the summer and autumn. *Cold Frames.*—Bedding-out plants which are sufficiently strong should be gradually accustomed to full exposure to the weather, and late potted-off cuttings encouraged by a rather close moist warm temperature, so as to get them sufficiently strong for planting out as soon as possible. If the weather proves favourable towards the

middle of the month, the stronger plants of things which are not liable to be injured by a slight frost may be planted out; but be particular to have everything well inured to the weather before planting out, and it will be better to defer until towards the end of the month than to plant out things which have not been exposed to the weather. See that the plants are perfectly clear of insects before planting out, especially Calceolarias, and do not allow any of the stock in small pots to suffer through the want of water. Keep the shoots of Cinerarias and Calceolarias well tied out, and remove any decaying leaves directly they can be perceived; and attend carefully to the plants with water, affording them during dry bright weather as moist an atmosphere as possible, and shading them from the mid-day sun. *Flower Garden*.—Get the beds, &c., prepared for their summer occupants, thoroughly pulverising the soil by occasional diggings where this can be done; and also get the arrangement for planting decided upon at once, so as to be able to add manure or leaf soil for such things as will be benefited by such additions to the soil. The whole class of variegated Geraniums delight in a rich light soil, and beds to be planted with these should receive a liberal dressing of decayed manure, and Lobelias will be benefited by the same attention; but Verbenas, Petunias, Calceolarias, Heliotropes, &c., bloom more freely in a deep light soil than in one that is strong and rich, and scarlet Geraniums can hardly be planted in too poor a soil. Attend to the plants with water as may be necessary after planting out, keeping the balls regularly moist until the roots get hold of the fresh soil. Sow the more useful and showy kinds of hardy annuals about shrubbery and herbaceous borders, or wherever room can be found for them. Also plant out, in well-prepared soil, Stocks, Asters, and half-hardy annuals which have been raised under glass; and carefully attend to all with water until they get established. *Greenhouse*.—Many of the New Holland plants will now be coming in bloom, and unless these are shaded on bright days their beauty will be but of short duration. During bright warm weather, sprinkle the floors and passages, &c., frequently, so as to keep the atmosphere moist, which will greatly assist in prolonging the beauty of specimens in bloom, and also benefit plants making their growth; and these should be syringed overhead on the afternoons of fine days. Ventilate freely during warm weather, but sparingly if drying cold winds prevail. If not already done, Epacris and winter-blooming Heaths should be cut back, placing them in the closest part of the house until they “break;” and those that have been cut back, and have started into growth, should be repotted where necessary, and any over-luxuriant shoots stopped, so as to secure close compact specimens. Attend carefully to everything with water, examining the plants frequently, and never water a plant without giving enough to thoroughly moisten the whole ball. See that everything is perfectly clear of insects, and do not allow young stock to suffer for the want of pot room. *Stove*.—Use every possible means to secure a moist atmosphere here, sprinkling the passages, &c., frequently, and syringing liberally, and shutting up early in the afternoon. Shading will be indispensable, to preserve many things from scorching, but use this as sparingly as possible; and endeavour to arrange the plants so

that Allamandas, and such things as require free exposure to light, to induce them to bloom freely, may be exposed to all but the mid-day sun. Attend frequently to regulating the growth of Dipladenias, &c., so as to prevent the young growths getting too much entangled. Keep everything perfectly free from insects, and do not allow young specimens to suffer through the want of pot room. Ixoras which have made sufficient growth, and do not seem inclined to set for bloom, should be kept very dry at the root for a fortnight or so, giving only enough water to prevent flagging; and see that plants of those showing for bloom are not infested by aphids, as smoking, after the heads are in a forward state, often causes the blooms to drop. Attend to repotting and tying out young stock, stopping and regulating the growth as may be requisite, to secure well filled-up handsome specimens.

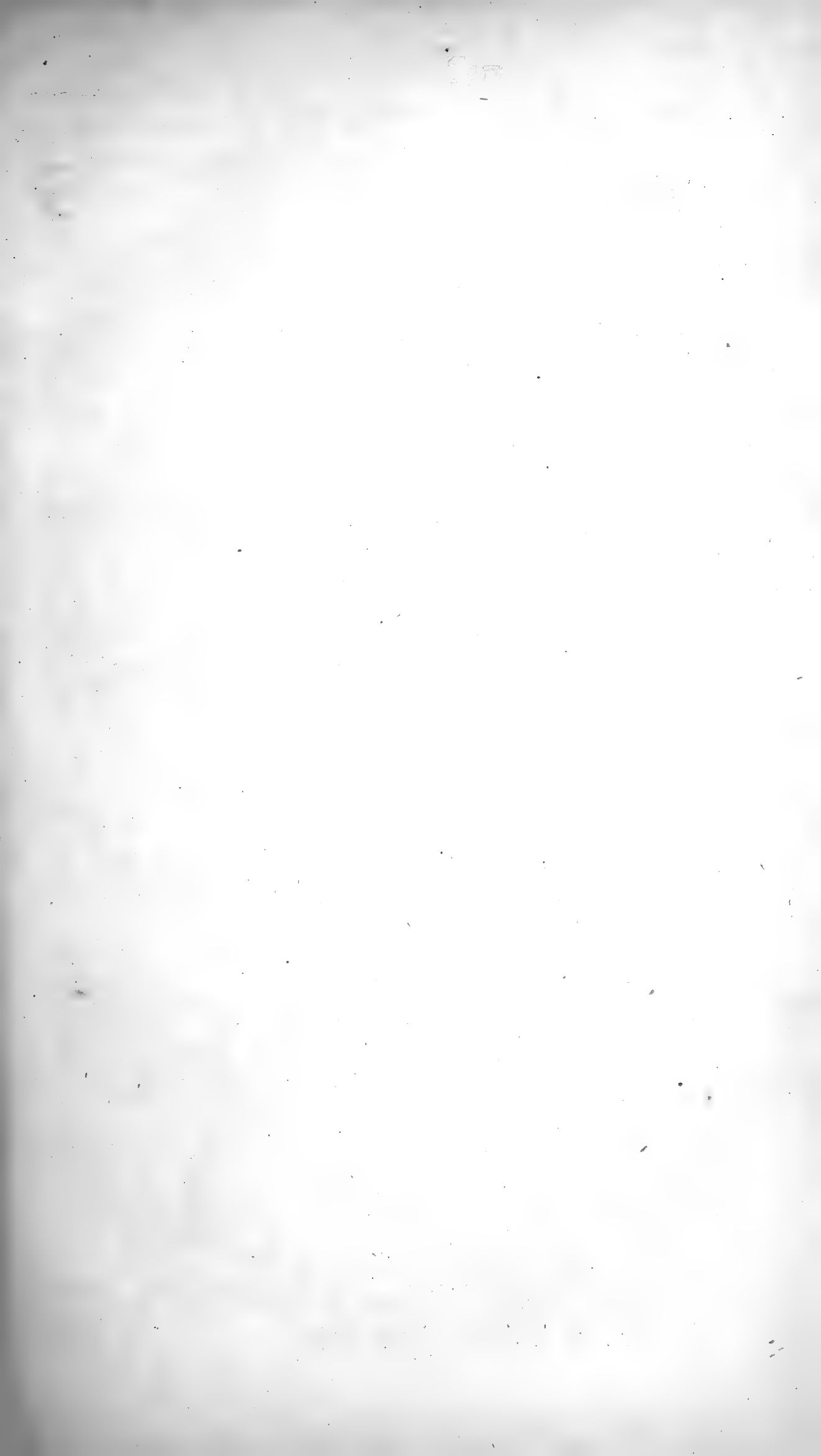
Hardy Fruit.—This spring being the latest known for many years past, the prospect of an abundance of fruit in this department is very promising, more especially as all standard fruit trees are in fine condition for bearing, owing principally to the failure of last season. Apricots will now require thinning, but, at the first, double the quantity intended to remain should be left on the trees, for if hot weather sets in during the process of *stoning*, a number of fruit will drop; therefore, it is better to make the final thinning after that time. The young fruit makes good tarts, and is also excellent when preserved with sugar. The caterpillars at this time are often very destructive to the young leaves and fruit; if any make their appearance, which the curling of the leaf will indicate, they should be diligently sought for; and the only way to extirpate them is, to unfold the leaves and kill them. Remove all strong shoots that can be spared. Peaches and Nectarines will now require attention. Go over the trees, and remove all *strong* shoots that can be spared from the vigorous branches, but disbud sparingly on the weaker members. Rather encourage all the foliage on the weak branches, which will tend to equalise the flow of sap throughout the tree. Destroy green-fly at its first appearance; for this purpose a good wash may be made by boiling in water 2 lbs. of tobacco, 2 lbs. soft soap, and 2 lbs. of sulphur; boil for one hour, and strain through a fine sieve; add sufficient water to make 20 gallons to the above ingredients. Sprinkle the trees with a syringe in the evening as soon as the sun is off them. Keep Strawberry beds free from weeds, and mulch the ground round the plants with stable litter or short Grass, to keep the soil moist and fruit clean. Plant out early forced plants in a warm situation, and, if watered occasionally, they will probably yield fruit in the autumn. The fruit in glass cases and orchard houses will now be set and swelling; thin them if necessary, and pinch out the points of the strong shoots. Assist the trees in pots when the fruit is swelling by liberal supplies of manure water and top dressing, and at no time allow the roots to suffer from drought. Give abundance of air in good weather, and use the syringe freely. *Forcing Ground.*—Give good soakings of water to Potatoes and Carrots in frames, and draw the lights off every fine day. As soon as any of the frames are clear of these crops, the soil should be forked, and the frame closed for a day or two,

to get the soil warm, and in order to receive Cucumber or Melon plants. Maintain a good heat to Cucumbers in bearing, thin and stop the shoots, so that all the leaves may have full exposure to the light; water freely, syringe and close the frames early in the afternoon; sow for ridges and for succession. Melons require similar treatment; cut away all useless growth; when a sufficient quantity of fruit is set place tiles or bricks under the fruit. If red spider appear, syringe the plants and close early. Plant out those sown last month, and sow again for the late crop. *Peaches and Nectarines*.—As soon as the second swelling takes place, the temperature may be raised with safety; continue to syringe the trees till the fruit begins to ripen; give plenty of air at all times; tie in the shoots, and expose the fruit as much as possible to the sun; see previous directions for late houses. *Cherries*.—When the fruit begins to colour, an increased temperature should be given, to hasten their ripening. Give plenty of water at the root, but keep a less humid atmosphere. When the crop is gathered, remove the trees to a shady situation, and keep them well syringed and watered. *Pines*.—Keep up a moist heat in the fruiting house, and let the temperature range from 75° to 80° , with an increase of 10° by sun-heat. Syringe in the afternoon when the plants are out of flower, and close the house early. Shift succession plants as they may require it, and maintain a moist growing heat of about 70° at night, and 90° during sunshine. Avoid a burning bottom heat. Give plenty of air on warm quiet days, but do not admit back and front air at the same time, to cause a draught in the pit; if so, the plants will assume a brown and unhealthy appearance. Give liquid manure occasionally to plants in free growth as well as those in fruit. All plants intended for winter fruiting should now have their final shift, and give them more heat and less moisture, to encourage them to start into fruit. *Strawberries*.—Introduce the last lot of plants, if not already placed, in cold frames; it must be done at once, to keep up a supply till such time as they are ripe in the open ground. Give plenty of air and water to those in bearing. Syringe to keep down red spider. *Vinery*.—Still apply artificial heat to all except the latest house, so that the temperature does not fall below that hitherto maintained; so continue till the fruit is perfectly ripe, after which time the houses may be kept cool, to prevent the fruit from shrivelling. Keep the latest Vines retarded as much as possible till they begin to show for fruit, when the usual treatment should be given. Attend to Vines in pots. Remove all lateral shoots from the young plants, as well as those in fruit. Mulch the surface with sheep or cow manure, and give frequent waterings with manure water. Do not let those in fruit suffer from drought, otherwise the flavour of the fruit will be greatly deteriorated. Clear out all plants from the Vineries, such as French Beans, Strawberries, &c., otherwise red spider may be very troublesome on the Vines at this season. *Kitchen Garden*.—Plant out Basil and Marjoram at the end of the month—choose a rich light soil in a warm situation; Tomatoes and Egg-plants may also be planted. Prepare ridges for Vegetable Marrows and Cucumbers; dig out the soil a foot deep and three feet wide, and fill the trench with stable manure or leaves—cover the whole again with soil mixed with rotten manure; plant under handglasses. Dutch Cucumbers for pickling may be sown

in rich soil in the open ground; plant out Lettuce, Cabbage, and Walcheren and other Cauliflowers—sow again for succession crops; flat-hoe Potatoes as soon as they are up, and keep the hoe moving among all growing crops; look over the seed beds, and, if any failures, sow again immediately; sow Cardoon, Beet, Salsafy, and Silver Onion, for pickling, on a piece of poor soil; Carrots may also be sown any time through the month, and Turnips on a cool border; thin Parsnips, Onions, Turnips, and other seed crops; sow Dwarf Beans and Scarlet Runners, and succession crops of Marrow Peas, and a drill of round Spinach between them—sow the Peas sufficiently wide to admit of planting two rows of winter Greens or Savoys between each row by and bye; cut out seed spikes from Seakale and Rhubarb. Prick out Celery in rich earth on a hard surface; prepare trenches for the early crop; take the soil out 9 inches deep and a foot wide, and dig in a good dressing of rotten dung at the bottom of the trench; water after planting, and frequently in dry weather. Sow Radishes and small Salad.

FLORISTS' FLOWERS.

Auriculas.—In the earlier part of the month these plants will be in perfection, for the season has been so backward, that they are fully a fortnight behindhand. As they go out of bloom, if seed be not wanted, the head of the stem should be pinched off just below the truss. It is as well not too soon to expose them to the full influence of the weather; they ought not to be allowed too much sun, nor do I think they should be exposed to very heavy rains. I hope to have a say about them next month. *Carnations and Picotees*.—The plants will now have attained a good root hold, and may therefore stand out in their summer quarters. If dry weather sets in, they will require watering, otherwise they are better without it. Take care of green-fly, and as the plants spindle for bloom, the blooming stakes should be put into the pots. *Dahlias*.—The stock will now be in small pots. Select those you want for planting, and repot them into larger ones. This will prevent them from being pot-bound, and will moreover keep the plants moving. Towards the end of the month, they should be put into cold frames, to harden them previous to planting out. A shady position for the frames is best, and see that they do not flag for want of water. *Pansies*, like *Auriculas*, are backward, but in May they are in their beauty. Guard them from sharp cutting winds, fumigate if green-fly appears, and water carefully. Weak liquid manure will increase the size of the blooms. *Pelargoniums*.—The work with regard to these plants must be regulated by what they are required for. If for early exhibition, they will now, or ought to be, bursting into flower. In this case, they should be fumigated once or twice, as it cannot be done when once the blooms open. Bees and hot sun must be guarded against, and water freely given. Those which are wanted for late blooming may be retarded by being placed in a cold frame. Take care that all the plants are *clean*. *Pinks*.—As these spindle for bloom, stake and tie them; and the sooner they are disbudded, the larger and better will be the blooms. It does not seem as if we should have the dry weather of the last two years, but should it set in, be careful to give water. D.





Iris reticulata.

Plate 165.

IRIS RETICULATA.

(PLATE 165.)

FOR the opportunity of figuring this charming little spring-flowering plant, we are indebted to Mr. Handasyde, of the Glen Nurseries, Musselburgh, near Edinburgh, who has for several years been paying considerable attention to its cultivation and propagation. Its colours, as will be seen, are extremely beautiful, and the flowers are produced in sufficient abundance to render them effective and striking. Among early plants it is, in short, a perfect gem, blooming as it does in the greatest perfection all through the months of March and April, the golden yellow blotched lip setting off the bright purplish blue flowers to excellent advantage. For purposes of spring garden decoration, it will doubtless be regarded as a great acquisition; it is very dwarf, scarcely rising more than 6 inches in height, and it is stated to be sweet-scented.

Though not new, this pretty little plant is not nearly so well known as it deserves to be; let us therefore hope that the prominence thus given it may be the means of bringing it again more into notice, which is all it wants to render it a universal favourite. It is perfectly hardy, and succeeds best in a mixture of bog or peat soil. We understand that Mr. Handasyde intends sending it out in September next.

 THE BALSAM.

WHEN well grown, the Balsam is perhaps the showiest of all our annual plants, and the one best adapted for conservatory or house decoration from July to September; but then it requires, I may say, daily attention to grow it, with the requisite vigour, to result in good, handsome specimens, 30 inches high, and nearly as much through, with each branch covered with bold double flowers, as large as a Carnation, and double as *Camellia imbricata*. Specimens of this kind are, however, attainable with the assistance of a good garden frame or pit; but they require, as noticed above, good cultivation, to get them up to the mark; and, with the object of showing how plants, such as are described, may be grown, I will briefly record my own practice, from the present date, supposing the plants to be now in 60-sized pots.

Let me first give a short rationale of culture.

Free growing, semi-succulent annuals as the Balsam require—1stly, all the light our climate affords, which suggests clean glass, and that the plants, during all the stages of their growth up to blooming, should be kept as near it as is practicable. 2ndly, a rich open compost to grow in, through which the roots will readily ramify and penetrate,

and rich enough to furnish them with food sufficient to keep the top growing freely ; the great demand made on the roots during the period of active growth informs us that liquid manure is a useful auxiliary to keep up the vigour of the plant, and may be applied freely when the pots become full of roots. 3rdly, bottom heat, to give every encouragement to a free growth—the application of a mild bottom heat from the first stage of the plant's growth till the bloom buds are formed should be maintained ; when the buds are all duly formed, and any further extension of growth unnecessary, the bottom heat should be allowed to die gradually away, so as to harden the plants, to bear the comparatively cool temperature of the conservatory for blooming. 4thly, air during every stage of growth ; the Balsam requires a large supply of air, that the plants may not become drawn and slender, but keep a short jointed, stocky habit, which will enable the lateral branches to support themselves without stakes until the blooms expand, when they will be required.

The soil I prefer is half-decayed turf, calcined clayey loam, horse droppings, half rotten, and rubbed through a half-inch sieve, and bone-dust. The clayey loam I calcine sufficiently, and it acts as a drainage to the soil ; in the absence of this ingredient, soft bricks broken to the size of Filberts may be used. The turfy loam may comprise rather over one half the mixture, the dung and drainage material the other. A handful or two of bone-dust may be used or not, as it may be at hand ; for sowing and potting into 60-sized pots, well decomposed leaf-soil answers as well as the compost.

From a 60-sized pot the plants are transferred to 6-inch pots. The compost is used rough, merely spreading a little of the fine soil over the surface, to prevent its drying too rapidly. I grow my plants, for the present, in a three-light frame ; there is now a slight bottom heat, and I lower the inside of the frame, so that there shall be six inches clear between the top of the plant when plunged and the glass, and also room for half a brick to be placed under each pot. As the plants are placed on their bricks, the space between the pots is filled up with tan, or the plunging material taken out. The temperature is not allowed to exceed 75° or 80° by day, and 60° by night—giving air early in the morning, and increasing it as the days get warmer, but never closing the frame entirely. Water when the soil in the pots gets dry, and gently sprinkle the foliage overhead in the afternoon. When the plants begin to touch the glass, remove the brick from beneath the pot ; and by the time they again reach it, they will be ready for another shift into 9-inch pots ;—compost, as before, and we bury the ball in the pot a little deeper each shifting. The plants will now require a great deal more room each way, as the growth of the lateral branches will be considerable. And whether still grown in the same frame, or removed to a deeper one, or a pit, the bottom heat must be kept up, say about 80°, with the brick or bricks underneath, to allow for lowering the plants as they grow up to the glass, that they may be always near it. The time when I get them put into 9-inch pots is generally the middle or end of July, at which time buds will have commenced to form freely ; and therefore, at this stage, the plants will require individual inspection,

to see which are going to produce double flowers, and which not. All the latter must at once be thrown away; and when you are satisfied that those you have left for growing are producing double blooms, every perceptible bud should be instantly removed, to allow the plants to grow and fill the pots with roots before allowing them to bloom. If you keep the foliage healthy, as our treatment will do, fresh buds will soon form in the axils of each leaf down to the base, and there is, therefore, no danger in removing the buds from the plants up to the time they are fully grown. A portion of the plants may be allowed to bloom in 9-inch pots; indeed, for the dwarf varieties, this sized pot is large enough—but to have fine specimens, the plants should again be shifted into 12-inch pots as soon as the roots have well reached the side of the ball of the former shifting. These sized plants will require a deep pit, and to stand a great width apart; three feet, or even more, will not be too much for the best plants. Again, place the pots on bricks, and give a slight bottom heat; in a fortnight's time from the last potting, the pots will be again filled with roots; and the bottom heat may be allowed gradually to decline, and the side branches should be neatly tied out. The plants should also now be daily inured to a cooler treatment, by well tilting up the sashes, and entirely removing them on mild quiet days—avoiding heavy rains and high winds. These plants will commence blooming towards the end of August, and will continue for a month; those in the 9-inch pots will bloom a month earlier. Weak guano water must be given them alternately with clear soft water from the time the 9-inch pots are filled with roots up to the time the plants show indications of exhaustion, and when the best of the bloom is gone. A few plants with the best flowers, and most striking colours, should be removed to a light airy house, moderately warm, to ripen their seeds.

My large plants average 3 feet, including the pot, by 2 feet 6 in diameter, and are perfectly symmetrical. There are two modes of training; one is to allow the main stem to grow, and tie out the laterals, forming a kind of obtuse pyramid when complete; the other is to pinch off the top when in the 6-inch pots, and select five, seven, or nine, of the best lateral shoots for training. These generally make the most uniformly shaped plants; in the latter case, the shoots should be tied into place as soon as they are long enough, and re-arranged when shifted into larger pots. When in bloom, no finer plants for the season are to be found for conservatories, sitting rooms, or for filling vases, baskets, &c.

IMPATIENS.

THE SIX OF SPADES.

CHAPTER VI.

UPON the occasion of our Curate's first appearance as a member of the Six of Spades, I derived much gratification from contemplating the deportment of Joseph Grundy. No sooner did he see his Pastor, than he made an uncomfortable attempt to conceal his pipe, which, being a Broseley of robust proportions, declined to be concealed at any price; while his features assumed, so far as their mirthful make permitted,

a troubled and solemn aspect. Whether he thought it probable that he should be called upon to oblige the company with a hymn, or whether he was under the impression that clergymen were painfully affected by tobacco, after the manner of the green-fly, there was but brief time to speculate; for the Curate, noting his perplexity, forthwith proceeded to dispel it by filling and igniting an ample bowl of clay, and by taking his seat, next to Joseph, with a pleasant and friendly smile. "I met old Michael Willis yesterday," he said, "and as soon as he saw me, forgetting, I suppose, that he has not a monopoly of eyesight, he swiftly put his pipe in his pocket. So, after some little conversation, I suddenly expressed, to his great surprise, the anxious hope that he was insured. For if," I continued, "the old saying be true, that where there is smoke there is fire, your waistcoat pocket, Michael Willis, may soon be ready for the tinder-box. And you would be rightly rewarded, for doing that which you are ashamed of doing, and for attempting to deceive a true friend."

"I'm not ashamed o' smoking," he answered, "but they do say as parsons hates it."

"Cruelly, despitefully, and with lying lips, Michael. With the exception of a very small company, not conspicuous for liberality or learning, the English clergy have never spoken against the moderate use of tobacco. The majority of them, smokers themselves, would be hypocrites to do so; and of the remainder, they, who go much among the very poor, and know how few their comforts, how many their hardships, must be glad to see the enjoyment (not the abuse) of a cheap and innocuous pleasure. They, who denounce it, must give up all their luxuries, and nearly all their comforts, before they can do so consistently; and then, Michael, we will argue the matter on the principles of religion and common sense. We have smoked our pipes for three hundred years in England, beginning with a walnut for a bowl and a straw for a tube; and, though kings have blown their "Counter-blasts to Tobacco," and yellow puritans have groaned and snarled at it, it still brings pleasant solace, throughout the land and under it—to the miner toiling for the coal, and to him who sits by the coal-fire's blaze; and leaves men as brave and as good, Michael, as when Raleigh, or whoever first brought the plant among us, was as yet unborn. So I finished my little sermon, and my friend, Joseph, knows why I have ventured to repeat it here."

"There's another little sermon, sir," said Mr. Oldacre, "upon tobacco and the pipe, which rescues the memory of one puritan, at all events, from silly prejudices on the subject. I mean that quaint, touching, old ditty, which George Wither sang, and which Frank here" (his son-in-law, Chiswick) "will sing for you if you wish."

Whereupon was rapping of the table, and a preliminary sipping of gin and water, and a re-arrangement of limbs into the most easy posture for listening; and then, Mr. Chiswick, with a voice very pliable and mellow, sang to us the impressive words and appropriate music of the well-known ballad.

And now, my brothers, do I feel glad at heart that I am writing for those who love a garden. I picture to myself some young Mr.

Gallio Noodle, sightless and noseless so far as flowers are concerned, yawning over "the Six of Spades," and saying, "whart a delightful convocation of snorbs! Parson smoking clay pipes with groom, and dram-drinking with the rest of the company, while melodious gent, who has been digging all day, and has come in, I dare say, all over worms, is holloaing Bacchanalian songs." Let him sneer, as he tosses the poor *Florist* down, and goes off with his cigar to the stables, for I am perfectly unconcerned and happy,—happy in my earnest hope that they, whose sympathies alone I crave, will recognize in our little assemblies that brotherly goodwill and amity, whereof themselves know from experience the excellent power and sweetness, and whereby the true lovers of a garden are united in a friendship, as stedfast as it is pure, and as universal as Divine Beauty itself.

These lovers of the garden know well, that as "one touch of Nature makes the whole world kin," so one truthful instance of a floral taste, one hearty expression of horticultural loyalty, is acknowledged at once and echoed instantly by a thousand kindred souls. They know of signs and pass-words more powerful than those of the Freeest Masons, the Oddest Fellows, the most Ancient Druids,—a cosmopolitan clanship, accredited throughout the world.

"Rather flowery," I hear it suggested. Well, yes, I think so; and, therefore, let us put aside the figurative, and illustrate our theme by fact. One hit, straight and home, is worth half an hour of sparring.

Returning, not long ago, from a visit to some distant friends, I arrived at their nearest station four seconds after the departure of the train; and, the engine-driver, to whom I bellowed piteously, not being of a floral mind, and coarsely refusing to come back, I was left, with another of the guests, to amuse ourselves for three hours as best we could. What was to be done? It was ten minutes' walk to the town, and to the town we went. Here was a fine old church, recently restored; but it was locked, of course, and both of us were afraid of Bedels. "Was there a billiard-table?" we enquired of the postman. "No, but there was a bagatelle-board at the 'Cock and Trumpet,'" an alternative which did not allure us. So to the chief hotel for luncheon, though we had scarcely breakfasted two hours ago; and here we imbibed some fearful sherry, the which, I verily believe, is lurking in my system now. A cigar; and we seemed entirely forlorn and prostrate; when suddenly my thoughts emerged from their gloominess, like railway-carriages from a tunnel into sunshine.

"Are there any nursery gardens in the neighbourhood?" I inquired of the waiter, just bringing us with the best intentions a copy of *The Times*, which we read two days ago.

"Oh yes, sir," he responded to my great refreshment, "Budd and Packe's, sir, late Twig, sir. Anybody will show you the way, sir."

Away I sped, my companion following reluctantly, for he was no horticulturist, and having referred to "anybody," in the person of an intelligent baker, we soon reached the gardens; and, in five minutes, I was perfectly at home and happy in the congenial society of Messrs. Budd and Packe. We sauntered through the houses; we peeped into the frames; we wandered among squares of ever verdant trees, phalanxe of flowering shrubs, and regiments of the deciduous order. We

admired, we denounced, we compared. "Had I seen so and so?" "Did they grow what d'ye call it?" "Did I know thingembob?" I seemed to have been there but ten minutes, when my fellow traveller, first attracting my attention with a groan, whispered the information that he "was slightly sick of those confounded sticks, and, if he could find a tank or pool, he thought he should go and drown himself." To which I murmured, "Au Reservoir;" and we parted. The hopeless Hottentot! "those confounded sticks" were the cleanest, strongest, straightest lot of Briars I ever saw in my life, tall standards, and breaking beautifully; and he groaned at them! Groaned at them, and when I returned to the station, with two large baskets of plants, pretended painful anxiety as to my mental state, and entreated me to have an interview with Doctor Conolly.

But never, since that day, have I been in want of pleasant occupation, never since have I suffered that most dismal loneliness, the solitude of a strange city, when circumstances have enforced a temporary sojourn in the neighbourhood of a nursery garden. With principals, or, in their absence, with foremen, I have fifty topics of mutual interest to discuss; in every garden something new to see; from every gardener something new to learn; and so the hours pass swiftly, pleasantly, and I hope wisely, onward.

Wisely, I believe. For after all, my brothers, it is the wisdom and goodness of gardening which make it such a deep and enduring happiness. It is thankfulness, reverence, and love, which make our gardens dear to us from childhood to old age, for

"Love is like the ocean, ever fresh and strong,
Which, the world surrounding, keeps it green and young."

Yes, it is because we cannot really love the beautiful flowers without loving Him "Whose breath perfumes them, and Whose pencil paints;" it is because there lies deep in the heart of man a yearning to recover Paradise, and to rest once more upon the Mount of God; it is because when we cherish tenderly, and watch adoringly, the Creator's handiwork, that we are permitted to "walk with Him through the garden of Creation;" it is because the life of a gardener is, or ought to be, a religious life;"

"Yea, holy is the gardener's life, for unto him is given
To be a fellow-worker with the sun and showers of heaven,
Gently to aid the labours of the teeming mother earth
And watch and cherish tenderly her children from their birth;"

it is because the wisest of men, such as were Bacon and Newton, were happiest in their gardens, and spake of gardening, from a glad experience, as "the purest of human pleasures;" it is because men, such as was Wordsworth, have bequeathed to us the certain confidence that "Nature never did betray the heart that loved her;" it is for these reasons, and many an other as true and gracious, that the pleasures of gardening are so great and lasting, and that of the earnest faithful gardener it may be justly said,

"Thy thoughts and feelings shall not die,
Nor leave thee when old age is nigh,
A melancholy slave.
But an old age, serene and bright,
And lovely as a Lapland night,
Shall lead thee to thy grave."

Thoughts like these ensured a special welcome for the Reverend Evelyn Goodhart, our Curate, as he entered our room of assembly. We were glad to have our Pastor's sympathy, and to appoint a Chaplain to our little band. Moreover, we ever found in him a cheerful companion and an enthusiastic gardener. You may see ample evidence of the latter characteristic in and about his cottage home; in his delightful garden, which seems to contain everything in miniature, a diminutive greenhouse, a small bed of American plants, a little rockery, a wee fernery, a tiny fountain, an intricate geometrical design on the most reduced of scales. Pretty creepers twining about his porch stoop to welcome you on your arrival, and the Jasmine and the climbing Rose look at you lovingly through the windows as you take your seat within. Passing through the hall—lobby would be more truthful, perhaps—you see, generally, a large bowl of wild flowers, gathered and admirably grouped by the children of the village school. In the Study and Drawing-room are choicer bouquets, either culled from his own Liliputian conservatory, or offerings from some brother Spade, and arranged, as only ladies can arrange them, by his beautiful sister, Rose Goodhart, who shares and gladdens the Curate's home. At early morn, in the sweet summer-tide, you may see him, with his scythe in his hand, sweeping down the dewy Grass, until the church bells call him to his daily service ("the wust and incurablest form o' Popery," according to Mrs. Verjuice), and he goes through the quiet graveyard, carefully honoured now, and ornamented with flower and shrub, and through the chancel-door, by which the Rose "*Félicité Perpetuelle*" climbs heavenward in emblematic beauty, into the hallowed courts of our dear old church. These, too, sometimes are reverently decked by our Curate and his little band of Acolytes, and "the king's daughter is all glorious within" upon her greater festivals with flower and branch, just as under the Older Testament, but now in substance and no more in type, the chapiters were covered with Pomegranates, "and upon the top of the pillars was Lily work." I like to see the children (but don't tell Verjuice) bringing the long ropes, covered round with evergreens, from their schoolroom, to festoon the arches, and encircle the pillars; and yet more do I delight to watch them, hurrying home from wood, and bank, and brook, with their pretty posies in their hands. It pleases me most to see the fresh spring flowers at Easter, the bunches of Primroses and Violets smiling at intervals upon the dark green Yew; but those children tell me, and this of course, that the old church is most beautiful upon their own festival, the which, being held upon St. Luke's Day, brings Dahlias in clothes-baskets to our Curate, until the glowing glass in our painted windows begins to pale its ineffectual fire, and our frivolous damsels to complain on the Sunday that their best bonnets have not fair play.

Our Curate is not only a lover of flowers himself but a zealous missionary florist. He was instrumental in establishing our Cottage-Gardening Society, which has reclaimed many a waste place from the weeds, many a sot from the beerhouse, and brought comfort to many a home. I remember Tom Cooper's garden, for instance, as the favoured residence of every known British weed, and as the favoured

residence also of the ugliest and leanest pig in the parish. Mr. Cooper devoted his spare time, at that period, to swearing, thick ale, and skittles, and, lightly esteeming a vegetable diet, quite ignored the science of horticulture. Somehow the Curate got hold of Tom, by giving him work, I think ("just like them Jesseites," Mrs. V. remarked), when he was nearly starving, and as lean as the pig which he had been compelled to sell, and then talked him into his "sober senses." And now no labourer about the place has a cleaner, neater, bit of ground than Tom. Dock and Groundsel, Thistle and Twitch, which once grew as closely together as the bristles of his neglected beard, have been displaced for Lapstone Kidneys and Cottager's Kale, for Gooseberry trees and Currant trees, for the Pæony, the Sweetwilliam, and the Rose. It does one good to see Tom, when the daylight lengthens, digging and hoeing, sowing and setting; while Tom, junior, proudly holding a brown-paper packet of seeds, scowls at small Jacky for running between fayther's legs; and mother, with her baby at the cottage door, looks on with a thankful heart. And you would have been affected, I am sure, if, at our last horticultural exhibition, you had seen as I saw the Curate, with his hand on Tom's shoulder, congratulating him on the prizes he had won.

S. R. H.

HORTICULTURAL SOCIETY'S NEW GARDEN.

MR. NESFIELD'S design for the new garden at Kensington Gore having been published and widely distributed, the public are able to form some opinion of what the general effect will be when the garden is completed, so far as a ground plan on a limited scale can convey that idea. The space appropriated for the new gardens is nearly 22 acres. The shape of the plot being that of a parallelogram, in the proportion of about three in length to two in width, the northern end terminating in a semi-ellipse shape, abutting on which is to be the grand winter garden or conservatory. We may add also that the ground slopes from the north to the south. From this very brief description, it will be obvious to those conversant with the subject, that a geometric garden on a grand scale would best adapt itself to the site and configuration of the ground, even had the Italian arcades, which are to surround the gardens, not have been contemplated; but when it is understood that these arcades, which are to be 25 feet wide and 20 feet high, and which are to open on the garden (forming a long promenade round them), will be of a highly decorative character, and that again, behind these, the surrounding buildings form some of the most imposing ranges of architecture in the metropolis, it becomes conclusive that a strictly geometric garden, which would admit of the introduction of architectural embellishments, fountains, &c., to an almost indefinite extent, could alone meet the requirements for which the garden is constructed, and at the same time harmonize with the surrounding buildings. Looking at the plan designed by Mr. Nesfield, in its general features, we think that he has laid down an admirably arranged series of terraces and slopes, which,

when finished, and the planting has been allowed time to grow, to furnish the garden, will produce an excellent effect. It has the great merit of oneness in its composition, and it is not overdone with flower-beds, having a large extent of turf and sloping embankments—refreshing features near large towns; and we hope the authorities will make arrangements for keeping the turf green, by having water laid down, so that it may easily be watered in dry weather. Nothing strikes one more in Paris than the greenness of the turf in their public gardens, even in the hottest weather, which is effected by constant watering. The turf in the neighbourhood of London burns very quickly, and we hope, therefore, the turf in the Kensington garden will be preserved verdantly fresh at all seasons, as it will form a great relief to the London Parks and dusty roads in the vicinity during summer.

As the arcades running on each side the garden are to be on different levels, Mr. Nesfield has adjusted his side terraces to correspond with them; and, from these, steps lead to lower terraces, which occupy the centre of the garden, the compartments for turf and flower-beds being pannelled, so as to be more easily overlooked from the terrace-walks. It is almost impossible to form a correct idea what the effect of all this pannelling will be when complete by a mere reference to the plan, and without having carefully studied the ground; so we must wait its further progress. For instance, we do not see how the ground marked 29 is adjusted to the level of the walk and steps leading from E to F. We also have some doubts whether the compartments 15, beautiful as they look on the plan, will not be too flat when carried out. But these, and the question of whether more trees must not be introduced as the work proceeds, are mere details which do not in the least interfere with the great merits of the design, taken as a whole; in which, as it appears to us, variety and means for floral display are artistically interwoven with architectural decorations, which, when completed, will form a garden worthy of the Horticultural Society.

S.

HOMES OF THE FLORISTS.—No. IV.

PLANTATION, MONKSTOWN. NEAR DUBLIN.

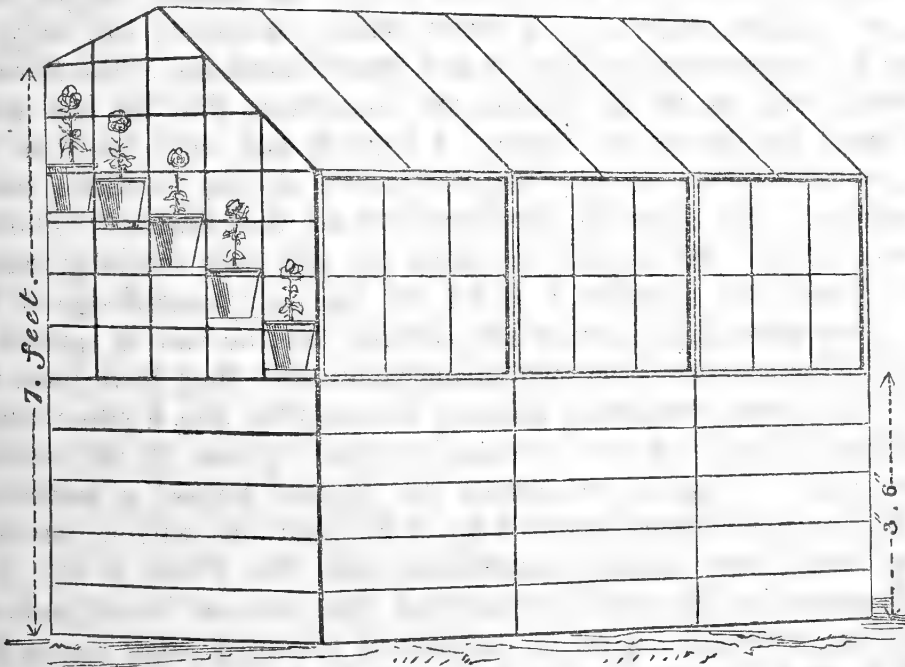
AMONGST the many things to be included in the visit I made to Ireland last month, the charge was laid on me from north and south, and east and west—"be sure you give us a full, true, and particular account of the Monkstown Auriculas;" and in obedience to my instructions, I made my appointment with their owner, but little anticipated the way in which it was to be done. Had I been unmarried, and young, instead of a benedict, with "wrinkled brow and frosty pow," there is no knowing what a romantic story I might have been the subject of; for, given a lady, rescuing her beloved Skye from the grasp of a Newfoundland dog, and consenting in so doing to have the joint of her finger bitten off, and one hastening to the rescue, running off for the doctor (who was a good hand at dressing a finger without a top, as in top-dressing an Auricula); and what a pretty story might not be built upon

such a foundation. But, alas! the days of romance are over with me, and I hope I shall not be found even *romancing*, as some, I think, have done on the subject of Auricula growing. There's my friend "Φ," the very moment he begins to read this, will take his pair of compasses and foot rule, to measure my statements, while that philosopher "Iota" is ready to prove to demonstration that they were not Auriculas I saw at all. However, with all this, I will venture.

Plantation, as Dr. Plant calls his place, with some little play on his own name, is a prettily situated villa, near Monkstown, about five miles from Dublin, and has long been celebrated for the florists' flowers grown there; for not only is Dr. P. a grower of Auriculas, but also of Carnations, Picotees, Tulips, and Roses. The gardens, two in number, close to one another, are models of a florist's garden—of course there is no attempt at bedding out, no geometric beds—but nothing is attempted that is not done thoroughly well; and I wish that those who say a florist's garden is always untidy, and who would especially look for that among "them H Irish," could see it; for it is the very picture of neatness; there is not a weed to be seen, and though the Tulip beds are raised above the level of the walk, yet the boards by which that is effected are hidden by a high box edging, which runs all round, while a high hedge separates the frames where the Auriculas are wintered. The beds of Tulips looked most vigorous and healthy, while the Carnations in pots were making, even then, way ahead. It seems not to signify what flower Dr. Plant takes in hand, he is sure to succeed with it. His Rose trees were magnificent, and I doubt not that the fine air of the neighbourhood, and the shelter which his garden enjoys, contribute in no slight degree to a result which, however, can only be obtained by persevering application and great knowledge of the flowers. Dr. Plant says, as far as Tulips are concerned, that he has some of the finest breeders in the world. I begin to feel an interest in the flower, and I suppose it only requires me to do so, to make me a floral maniac. But, after all, the Auriculas are the charm of "Plantation," and to see and report on them my visit was specially made; they have been the admiration of all who have any knowledge of the flower; they have always, or nearly always, led the van in prizes at the Royal Horticultural Society's spring show, and they have been the subject of the most astounding praises; in the latter line, a paper which appeared in "Gossip for the Garden," written by one of the editors, took the palm. It spoke of trusses ten inches across! a statement which was rather roughly handled by "Φ," and one which, notwithstanding that I have always maintained that Dr. Plant is the best Auricula grower in the world, I could not then, nor can I now, endorse. I shall, then, attempt to give an account of his stock, and then a few hints as to what I believe to be his method of growing. The stock consists of about (I should say) 1000 plants; of these about 600 are bloomers, but if any one goes there expecting to see all the varieties grown he will be mistaken, for the number of sorts is comparatively limited, and this to me constitutes a great defect in the collection. There are not, as near as I could judge, more than five or six of each class; these are varieties which, from long experience, Dr. P. knows

can be done well for exhibition, and hence one's eye meets a reduplication over and over again of the same flowers. In greens Booth's Freedom and Colonel Taylor, Lightbody's Star, and one or two others, are the favourites; in greys, Waterhouse's Conqueror, Fletcher's Ne plus Ultra, and Mary Anne; in whites, Taylor's Glory and Popplewell's Conqueror; and in selfs, Faulkner's Hannibal, Hay's Apollo, and Redmayn's Metropolitan; the two former are flowers very little known on this side of the water; but "Iota" has heralded the praises of the first, and the second, while not equal to Metropolitan as far as properties are concerned, is of a most lovely blue, unlike in this respect any Auricula that I know. Everything connected with them was perfect; the foliage strong and healthy, the stems vigorous, the individual pips very large, and the trusses well formed. I measured several pips of Taylor's Glory, which a half-crown did not cover; while Ne plus Ultra's were certainly as large as a crown-piece. Nor did this seem to be obtained by any over-stimulating process. I do not myself think that very great size in the Auricula is a great recommendation; it can hardly be obtained without coarseness and depriving the flower of that refinement which constitutes one of its chief charms in my eyes.

In winter, this stock is grown in frames filled three parts with gravel, on which the pots stand, and in spring they are brought into the blooming stage, which I look upon as one of the most perfect things of the kind I have ever seen. I may call it a diminutive span-roof, and is built against a wall, facing about due north. A reference to the accompanying diagram will more fully explain its structure. The



top, sides, and front (half way down) are glazed; the fronts slide down in the same way as the top sash of a window, and as the shelves commence at about 3 feet 6 inches from the ground, it follows that all the plants are just within range of the eye, can all be looked at and handled without much stooping, and nothing can be more beautiful to an Auricula grower's eye than the side view, looking over a mass of well-

grown plants in first-rate bloom, nor is there is any cotton wool amongst the trusses, much less that wonderful system of fortifications which "Φ" lately described in the *Florist*. Alas! I fear the volunteer fever has seized hold of him, so that, like the man who surfeited himself with roast pig, until at last he saw everything "porky," and ended by marrying the pig-faced lady—the valiant member of the L. R. V. R. C. sees nothing but *bullets*—bullets even to keep Auriculas in their places; here's martial law with a vengeance! Surely the "red planet Mars" has another sin to answer for, in inspiring a peaceful member of society with such a propensity. How the Dr. laughed when he mentioned it! The form of his trusses was perfect, and is all attained by simply using a piece of thin stick, with which he presses back the footstalks, and this by no means gently. I have tried it since, using one of "my lady's" broken netting pins, and have found it answer admirably; so if *crede experto* is to be best, I can bear my testimony to this plan; it is better to do it early in the morning, when, after the night's confinement, the stalks are softer and more easily bent. And what, it may be asked, is the system of *education* by which such a result is obtained? Now I could not be inquisitive, I could only use my eyes, which some people do say are sharp ones, gather up a hint or two that he let drop, and give, as the Methodists say, "my experience." The first thing that struck me was, that the pots were of a much larger size than those generally used on this side of the Channel; the largest blooming plants were, I should think, in pots fully 7 inches across, and the others in similar proportions. You must give the child plenty of food, or you will never have the well-grown man, is the Dr.'s declaration on this point. I do not, however, say that I thoroughly agree with this as to the child Auricula. Blooms as large might, I think, be obtained in smaller pots; in other respects Dr. Plant's system does not differ materially from that which I have myself adopted, and recommended in the *Florist*. At potting time they are put into a compost not over rich (well-rotted cow-dung, loam, and leaf-mould, one-third each, I should say was quite good enough); they are then placed under a shed of considerable height, so that they do not get drawn, and receive no rain, except what may be driven in through the front. They are wintered in common frames, facing the south, though a hedge at some little distance prevents them getting much sun. In spring they are top-dressed entirely, as far as I could see, with well rotted dung. This plan I adopt myself, and nothing can be more wonderful than the development that takes place under its influence. Not a drop of liquid manure is used, and nothing of a highly stimulating character is permitted to enter into the composition of the stuff in which they are grown. If night-soil is used, it ought to be at least seven years old, was Dr. Plant's declaration; and the *if* was said in such a manner as implied that he had rather not use it. "But what about the trusses ten inches across?" I am bound to say I saw nothing any way approaching to it, nor do I think, with all due deference to those who made the statement, that it is possible; if it were, no wonder we should want bullets to keep them in order! True, Dr. Plant said his blooms were nothing to what they sometimes are, a fact which my

brother corroborated. But even so; either they have a different inch measure for Auriculas, or some other method of computation not in Cocker or Colenso, to make the statement a true one. But taking away all exaggeration, the collection is admirably grown and bloomed; it has its one fault, want of variety; and for the encouragement of all growers of this lovely spring flower (though some will call it formal), I venture to say that by attending to plain common-sense rules, and by a little regular oversight, it will be quite possible for an Auricula grower to succeed. On all sides I hear praises of the bloom; certainly this has not been because the season has been favourable, but because, I fancy, people have understood the flower better. I shall hope to say something on the Auricula bloom of 1860 next month, and shall be glad if in this paper I have done anything to prosper the cultivation of a flower which is, I hope, coming into greater favour than ever.

Deal, May 17.

D.

NOTES ON THE MONTH.

THE cold of April (during which month we had a frost nearly every night) was extreme. The 1st of May looked on almost a torpid vegetation; for, with the exception of a few plants which vegetated early, everything was dormant. The pastures and meadows had scarcely put on that tinge of bright green indicating growth, but wore a bluish aspect, the effect of the drying east wind which for so long a time previously had swept over them, parching the surface of the ground, and giving all kinds of vegetation a stunted starved look. The first fortnight in May produced little variation. We had the same dry cold days, with easterly winds, and the buds of trees and shrubs seemed to hesitate before committing themselves to such an uncongenial climate. About the 12th, however, a salutary change took place; the wind veered round to the south-west, and we had almost unremitting rain up to the 19th, verifying an old adage in this neighbourhood, that a Saturday's moon always produces a flood, and surely a flood we had. With the change of the wind, the temperature increased to summer heat, and the rain falling on ground heated by the dryness of the previous month, converted it into something resembling a hotbed, on which vegetation has pushed forth with accelerated rapidity, and the meadows and pastures, which a fortnight since were comparatively barren, are now teeming with herbage. The almost sudden burst of vegetation has been quite as remarkable with forest trees, which have unfolded themselves with wonderful rapidity under the tropical sky of the last week, and are now clothed with the richest verdure. The Apple orchards are one mass of bloom, varying from the purest white to a roseate blush, than which nothing can be more truly beautiful. Pears and Cherries are over, but they, too, have been covered with their snowy blossoms. We think the wild Cherry of the woods worthy more extended planting; the last week in April its masses of snow-white blossoms were conspicuous at a great distance, and those who are fond

of blackbirds and thrushes should plant it, as the fruit in July is much prized by these choristers; and probably a few trees in the woods would satisfy them, and make them less craving after garden fruit, though we expect these shrewd fellows will continue to prefer a May Duke or Elton to the Black Gean of the woods; the Jay, too, is very fond of the Wood Cherry.

The prospect for an abundant crop of orchard fruit is very promising; garden Pears, Plums, and Cherries look equally well. Peaches have suffered greatly in some situations by the inclement weather of April and the first part of May. Apricots are generally a thin crop, the foliage never apparently recovered the injury it received from the spring frosts of 1859. Strawberries will be a very partial crop; on dry soils they have stood the winter well, but in cold situations have suffered much, and are looking weakly and blooming scantily. Kitchen garden produce is making great progress, and will probably be little if any behind the run of ordinary seasons.

The plans for the Kensington Gore gardens strike one as being well adapted to the peculiarities of site and accompanying architectural features. If fault there is in the details, it lies in great excess of panning and embankments, which, if ever the *million* are admitted, will stand a good chance of having their angles unceremoniously reduced. The Crystal Palace gardens after the *Foresters' fete*, Mr. Eyles will not, we think, forget in a hurry; and notwithstanding the beauty of verdant slopes and ramps, they are not exactly the thing for a large concourse of people to scramble over. We think, too, that without the introduction of more large trees the gardens will have a flat naked appearance for some years to come. We hear symptoms of an early dissolution of the Pomological Society. How is that?

G. F.

MAMMOTH-TREE VALLEY.

THOSE who find themselves oppressed (says Mollhausen in his "Journey from the Mississippi to the Coasts of the Pacific") by the crowds in the rapidly-growing towns (in California), and stunned and wearied by the ceaseless uproar of active trade and the society of men who are indifferent to almost everything but gold,—for which they are willing to sacrifice both health and life,—may find relief and compensation in the mild climate, in the fruitful soil bordering the rivers whose waters reflect the grandest Oaks and Pines, and in the generous return that the inexhaustible fertility of the soil will make for the slightest labour bestowed on it; and while the sickly gold digger is watching mistrustfully over his treasures, the tiller of the ground may find delight in watching the prosperous growth of every seed and plant he puts into it, or in wandering over his rich pastures and seeing his prosperity continually increasing with the increase of his flocks and herds.

California is the land of wonders, and every traveller who reaches it may find something in it corresponding to his inclinations. The observer of nature and worshipper of her silent influences, who feels himself most at home in the vast realm of the vegetable world, and in watching

the operation of the laws that govern the growth and development of plants, may find in this land of gold, spots on which he will walk as on consecrated ground; and will look up with rapture at the gigantic trees that lift their proud heads to bear witness, like the pyramids of Egypt, to the lapse of thousands of years; and as they suggest thoughts of their builders, so do these of a mightier hand.

About thirty miles from Sonora, in the district of Calaveras, you come to what is called the Stanislas River; and following one of its tributaries that murmurs through a deep, wooded bed, you reach the Mammoth-tree Valley, which lies 1500 feet above the level of the sea. In this valley, which takes its name thence, you find yourself in the presence of the giants of the vegetable world (*Wellingtonia gigantea*); and the astonishment with which you contemplate from a distance these tower-like *Coniferæ*, rising far above the lofty Pine woods, is increased when on a nearer approach you become aware of their prodigious dimensions. There is a family of them consisting of 90 members, scattered over a space of about 40 acres; and the smallest and feeblest among them is not less than 15 feet in diameter. You can scarcely believe your eyes as you look up to their crowns, which, in the most vigorous of the colossal stems, only begins at the height of 150 or 200 feet from the ground.

Whether it is the enormous girth of the grey moss-grown trunk, the incredible height, or the straight beautiful growth, that produces so powerful an impression, it is long before you can collect your thoughts sufficiently to be able quietly to consider their peculiar characteristics, and determine to what species they belong. Most of them have blunt tops, which have been nipped or broken off by storms in winter, or by the mass of snow resting on them; others have been injured at their base by fires made by the Indians; and others, again, have suffered from the axe of the white population, in their restless search after everything in nature that can bring them pecuniary profit. With this motive one trunk has been robbed to the height of 50 feet of its bark, which has been carried about and exhibited in various parts of the world;* and a spiral staircase was afterwards cut in it, by which visitors (paying for their admission) ascended to a considerable height. The owner of this district, who also acts as guide to visitors, has given a name to every tree according to its position, or to some circumstance about it that has struck his fancy. The tree that has been cut down was denominated "Big Tree;" not without reason, as it is 96 feet in circumference, consequently 32 feet in diameter, and 300 feet high; it took five men 25 days to fell it, and the only way this could be effected was by boring holes in it which were then brought into connection by the axe. The stump that was left has been smoothed at the top, and offers a surface on which it is said sixteen pairs of waltzers can perform their gyrations without interfering with one another's movements. By counting the rings it would seem that that tree must have attained the age of 3000 years. Another, called "Miner's Cabin," from a hollow

* This seems to have found a resting-place in the Crystal Palace at Sydenham, where it forms a conspicuous object in the warm end of the building.

in the trunk, is 80 feet round and also 300 feet high. The "Three Sisters" are three trees that appear all to issue from the same root, and the middle one only begins to get its branches at the height of 200 feet; its circumference is 92, and its height 300 feet. Besides these there are "Old Bachelor," "Husband and Wife," neither much inferior in size to those I have mentioned; and even more colossal is the "Family Group," consisting of father, mother, and 24 children. The father has fallen some years ago, has struck another tree in its fall, and has broken off in a length of 300 feet, the entire trunk measuring 450 feet; at the place where it broke, its circumference is 40 feet, and at the base 110; the mother is 91 feet round and 327 feet high; and another hollow trunk which has broken off in a length of 75 feet is denominated the "Horseback Ride," because a man on horseback can ride conveniently through it from one end to the other; and there is also "Uncle Tom's Cabin," a trunk 300 feet high and 90 feet round, with a hollow at the base in which is there plenty of room for a party of five-and-twenty. The rent that forms the entrance to this tree is two and a half feet broad and 10 feet high, and certainly few of the gold diggers have such spacious dwellings as its interior presents. It is most grievous to think that these magnificent monuments of the power of vegetation should fall a prey to the destructiveness of man, when after their thousands of years of existence they are still vigorous enough to remain, if they were left untouched, as objects of wonder and admiration to generation after generation of our short-lived race.

BOUGAINVILLÆA SPECTABILIS.

It is somewhat singular that the editor of the *Gardeners' Chronicle* should have been so far in the dark as to the Bougainvillæa as to write a leading article for the purpose of making known to the horticultural world the great merits of Mr. Daniels as the first gardener to bloom this rather curious plant; whereas it has not only bloomed under my care in a cool stove 12 or 15 years ago, but I have seen it in bloom in a score of places since, without considering it anything remarkable; indeed, the cultivation is simple and easy enough. The plants flower magnificently at Lisbon, where it is common, and adorn the walls of many buildings with a rich profusion of bloom. I hear that it does the same at Naples. The simple fact of treatment is, that after growing freely, it should be allowed to ripen its wood well, and the following spring, the mauve-coloured bracts will appear at the end of every shoot. The plant will soon cover a large space, and should only be pruned after blooming; as for it requiring a bottom heat of 140° that is all nonsense. The ordinary border of a stove or warm conservatory will suit it; but it must have an abundance of light during its growth, and be allowed to go dry at the root during its period of rest. I almost think it would flower against a south wall if the wall was covered with a glass case, and the plant protected from frost during winter.

R. T.

HORTICULTURE IN IRELAND.

FROM all who know anything of the country, we are continually hearing of the great progress that Ireland is making in every material object ; and we are especially told that the old, miserable, wretched system of agriculture is rapidly giving way to one more in accordance with the dictates of science, the requirements of the people, and the progress of the day. A few words, then, from an eye-witness as to the twin sister of agriculture, may not be out of place. The *Florist* for May showed that in the culture of the Vine our neighbours know a thing or two ; and I can testify to their apparent determination to go ahead in floriculture. It so happened that during the time of my recent visit the spring show of the Royal Horticultural Society took place, and I was solicited to act as judge upon that occasion ; consequently a very good opportunity was afforded me of testing the present exhibition with what it used to be, "when I was young," and I myself contending in what I fear was not at times a very peaceful arena. But not satisfied with this, I visited the gardens of two of our wealthy Dublin merchants, and I am bound to say I saw a degree of labour bestowed there, and money spent, that clearly showed they were in earnest. In both Mr. Bewley's garden and Mr. Gray's were orchard houses, stoves, and greenhouses of large size, and filled with costly plants. Mr. Bewley's orchard house, I think the gardener said contained 6000 square feet, and his collections of Orchids and Ferns were remarkably fine ; some large masses of Dendrobium and others were such as one rarely sees ; while Mr. Gray, although he has one or two nice stoves, seems to be more anxious about greenhouse plants, Pelargoniums, &c. If, thought I to myself, these are samples of what the exhibitors are doing, one may expect a tolerably good show ; and with this feeling in my mind, I attended the Royal Horticultural Society's exhibition, nor was I disappointed in my expectations. I remember when *six* greenhouse plants used to be shown *in a basket* ; *now* I saw plants nearly equalling in size the masses that used to come from Mrs. Lawrence and Mr. Collyer. Azaleas were things almost unknown as exhibition plants in those days ; *now* I saw large and well grown plants one mass of bloom. *Then* Orchids were indeed "*rari nantes in gurgite vasto*," one here or there ; *now* there were several collections of these which showed that pains and skill had been bestowed on their culture ; *then* Pelargoniums if shown at all in April (and it is too early) were miserably lanky things—*now* they were, despite their forcing, bushy and tolerably stubby plants. And better than this, even ; *then* there was squabbling and jealousy, and "evil surmisings and disputings," because the judges had known whose the plants were, whereas *now* the exhibitor's name is appended to each, so that, if partiality is shown, it must be with open eyes ; and I was informed by the secretary that there are far fewer complaints of wrong judging than when the names were unknown. It was interesting to remark that the collection of Orchids which gained the first prize was grown in the city itself, beating even Mr. Bewley, of whose fine collection I have already spoken. This belonged to Joseph

Hone, Esq., of Leeson-street; the Lord Chancellor was the other competitor in this class. In fine foliaged plants there were really some beautiful specimens, amongst them a large example of the lovely *Cyanophyllum magnificum*. Amongst greenhouse plants I may mention the most perfectly grown and bloomed specimen of *Erica elegans* I ever saw; it did infinite credit to its owner, Mr. Gray, who also had some nice plants of standard Azaleas, which being quite a novelty in Dublin, received a great many admirers. In what are called, strictly speaking, greenhouse plants, there was the usual display of *Eriostemons*, *Aphelaxis*, *Boronias*, &c., which let those admire who may, I cannot say that I do. Roses were shown in pots; one collection, that of Dr. Neligan, was very good, but forced Roses are too similar, they lose very much distinctness of character in the process. In Mr. Pim's collection was a plant of that genuine *sell* (to be classed with *Spergula pilifera*, Nosegay Geranium, &c.) *Isabella Grey*. How is it, after all, that it is always about the florists' flowers and the smaller things one finds the great throng of visitors? I believe simply because people are then looking at what they can grow themselves, whereas the others are far above their reach. And now as to florist flowers; I cannot say that the exhibition seemed to be at all equal to what it ought to have been; it was certainly too late for Hyacinths, which were poor, and except for Dr. Plant, who can coax his toa day too early; for Auriculas and Pansies; while the Cinerarias were not by any means well grown, and a lot of rubbish in the way of seedlings was, I was grieved to find, commended; there was not a flower in it worth growing, to my poor judgment. The Auriculas shown by Dr. Plant were very fine, but the others so indifferent that we had to disqualify them. Florists of Dublin, what are you about? One of you, I know (my own good brother) could not show, for his plants found out that two removes in a year do not help on blooming. But, alas! for the others that were shown, wrongly named, badly grown, and dirty looking into the bargain! and this with the example before you of the first Auricula grower in the world. Don't be afraid of him, gentlemen; use a little common sense, take a few hints from him, and it will be greater honour to him, if he beats you then, than it is now. There was one nice lot of 24 Pansies, the backward season having hindered, I presume, more being exhibited.

Altogether, there was great cause for congratulation in the show. A vast improvement was manifested in most classes, and some hints thrown out by the judges, which it is hoped will not be lost, as to torturing plants out of their natural shape. When will the day come when over-sized plants will not find such merit in people's eyes as they do? I enjoyed much meeting with old friends, and competitors, too, and can only add, may future years mark a still further progress!

Deal, May 25.

D.

Subjoined is a list of prizes in the flower department:—

SECTION I.—PLANTS.

Exotic Orchids (Nine): 1st prize to Joseph Hone, jun., Esq., Leeson-street; Mr. King, gardener; for *Vanda suavis* and *insignis*, *Lælia purpurata*, *Cattleya lobata*, *Phalænopsis grandiflora*, *Aerides Fieldingii*, *Saccolabium retusum*, *Cattleya Mossiæ superba*, and *Oncidium ampliatum*; 2, T. Bewley, Esq., Rockville,

Blackrock; Mr. O'Brien, gardener; for *Vanda tricolor* var., *Uropedium Lindenii*, *Cattleya Mossiæ*, *Lælia purpurata*, *Lycaste Skinneri*, *Oncidium luridum guttatum* and *Dendrodium nobile*, *clavatum*, and *densiflorum*; 3, The Lord Chancellor, Hazelbrook, Roundtown; Mr. Byers, gardener.

Ditto ditto (Six): 1, T. Bewley, Esq., for *Saccolabium guttatum*, *Lycaste cruenta*, *Brassia verrucosa major*, *Oncidium Papilio* and *luridum*, and *Phaius Wallichii*.

Plants of fine or remarkable foliage (Six): 1, T. Bewley, Esq., for *Cyanophyllum magnificum*, *Croton variegatum*, *Caladium Chantini*, *Begonia grandis*, *Dracæna terminalis*, and *Ananas sativa variegata*; 2, The Lord Chancellor; 3, L. G. Watson, Esq., Sidney-avenue, Blackrock; Mr. Flynn, gardener.

Exotic Ferns, ditto; 1, L. G. Watson, Esq., for *Gymnogramma ochracea*, *G. Peruviana argyrophylla*, *G. Mertensis*, *Adiantum formosum*, *Asplenium diversifolium*, and *Cheilanthes tomentosa*; 2, T. Bewley, Esq.; rest no merit.

Ditto, Lycopods, ditto: 1, T. Bewley, Esq., for *L. Lyelli*, *L. umbrosum*, *L. inæqualifolium*, *L. Mertense*, *L. viticulosum*, and *L. stoloniferum robustum*; 2, T. Hutton, Esq., D.L., Esq., Elm Park, Drumcondra; Mr. Connor, gardener.

Stove or Greenhouse Plants (Nine): 1, the Chief Secretary, Phoenix Park; Mr. M'Neill, gardener; for *Rhynchospermum jasminoides*, *Hebeclinium ianthinum*, *Acacia Drummondii*, *Phaius Wallichii*, *Franciscea confertifolia*, *Aphelexis purpurea grandiflora*, *Eriostemon cuspidatum*, *Acrophyllum venosum*, and *Boronia tetrandra*; 2, W. Jameson, Esq., Montrose, Donnybrook; Mr. Baker, gardener; 3, his Excellency, the Lord Lieutenant, Viceregal Lodge; Mr. G. Smith, gardener.

Ditto ditto (Six): 1, Robert Gray, Esq., Temple Hill, Blackrock; Mr. Tobin, gardener; for *Boronia tetrandra*, *B. Drummondii*, *Tetratheca ericæfolia*, *Eriostemon neriifolium*, *E. pulchellum*, and *Aphelexis ruprestris grandiflora*; equal seconds, J. Watkins, Elm Park, Merrion, and the Chief Secretary; no third award in judges' book.

Ericas (Six large): 1, Robert Gray, Esq., for *E. tricolor Wilsoni*, *E. ampullacea*, *obbatia*, *E. Syndriana*, *E. Cavendishii*, *E. florida*, and *E. ventricosa superba*; 2, W. Jameson, Esq.

Ditto, in pots not exceeding 9 inches, ditto; 1, the Chief Secretary, for *E. Cavendishi*, *E. vasiflora*, *E. mutabilis*, *E. Blandfordiana*, *E. retorta major*, and *E. Vernoni superba*. Rest of insufficient merit.

Azaleas (Six): 1, George Roe, Esq., D.L., Nutley, Donnybrook; Mr. Duncan Wright, gardener; for *A. optima*, *triumphans*, *splendens*, *Jacksoni*, *Exquisite*, and *Indica alba*; 2, the Chief Secretary; 3, Robert Gray, Esq.

Rhododendrons (Ditto): 1, the Chief Secretary, for *R. alta-clerense*, *Blandyanum*, *Mirandum*, *Jackmanni*, *Everestianum*, and *Ninon de l'Enclos*; 2, Sir R. Palmer, Bart., Kenure Park, Rush; Mr. Hickey, gardener; for *Towardianum*, *Ne plus Ultra*, *Oleiferum*, *Curatum*, *Princess Victoria*, &c. The judges desire strongly to deprecate the barbarous practice of staking plants out of their natural character, as some Rhododendrons shown on this occasion were.

Roses in pots (ditto): 1, J. M. Neligan, Esq., M.D., Clonmel House, Monkstown; Mr. Andrew Byrne, gardener; for *Charles Lawson*, *Jules Margottin*, *Auguste Mie*, *Géant des Batailles*, *Paul Ricaut*, and *General Changarnier*; 2, George Pim, Esq., Brennanstown House, Cabinteely; Mr. Delany, gardener; who had the new yellow Rose, *Isabella Gray*, *Gloire de Dijon*, *Marx*, *Madame Plantier*, *Louis Odier*, and *La Reine*; 3, his Excellency, the Lord Lieutenant.

Pelargoniums (ditto): 1, Robert Gray, Esq., for *Constance*, *Forget-me-not (Lynes)*, *Flying Dutchman*, *Queen Eleanor*, *Sanspareil*, and *Virgin Queen*; 2, Herbert Manders, Esq., Obelisk Park, Blackrock; Mr. Toole, gardener.

Fancy Ditto, Ditto: 1, Robert Gray, Esq., for *Annette*, *Delicatum*, *Lady Hume Campbell*, *Beauty of Winchester*, *Celestial*, and *Barbette*; 2, G. Pim, Esq.; 3, his Excellency the Lord Lieutenant.

Cinerarias, ditto: 1, his Excellency the Lord Lieutenant, for *Sir Charles Napier*, *Magnum Bonum*, *Optima*, *Brilliant*, *Maryanne*, and *Scottish Chieftain*; 2, George Pim, Esq.; 3, Robert Gray, Esq.

Single Exotic, fine foliage; 1, T. Bewley, Esq., for a grand specimen of the Bourbon Palm (*Latania Borbonica*); 2, the Chief Secretary, for a fine Date Palm (*Phoenix dactylifera*); 3, his Excellency the Lord Lieutenant, for a very large specimen of the India rubber tree (*Ficus elastica*).

Ditto in flower: 1, Robert Gray, Esq., for a grand specimen of *Erica elegans*; 2, W. Jameson, Esq., for a wonderfully fine *Azalea magna*; 3, George Roe, Esq., D.L., for a good plant of *Vanda suavis* var.

Ditto, new or very rare: 1, W. Jameson, Esq., for *Genetyllis tulipifera*; 2, T. Bewley, Esq., for the new and singularly beautiful variegated Fern, *Pteris argyræa*; 3, Joseph Hone, jun., Esq., for a very nice specimen of the rare and very interesting Australian Fern, *Todea pellucida*.

SPECIAL PRIZES.

For group of nine *Azaleas*, each different: The silver cup awarded to William Jameson, Esq., Montrose, for a dazzling group, consisting of triumphans, Prince of Wales, *sinensis alba*, *præstans*, *Apollo*, *splendens*, *indica alba*, *Fielder's White*, and *Glory of Sunning Hill*. Second prize withheld, on account of insufficient

THE LORD LIEUTENANT'S PRIZES.

For group of nine *Rhododendrons*, each different: 1, Robert Gray, Esq., for triumphans, *Negro*, *Blatteum*, *Conqueror*, *Princess Amelia*, *Roseum elegans*, *Elfrida*, *Vesuvius*, and *Alaric*; 2, Sir Roger Palmer, Bart., for *Ornatum*, *Elizabeth*, *Rhodoleia*, *Magnificent*, *Victoria*, *Faulkneri*, *Cato*, *Cervantes*, and *Gloire de Gand*; 3, the Earl of Charlemont, *Marino*; Mr. Brady, gardener.

SECTION II.—FLORISTS' FLOWERS.

Hyacinths, double, blue (three): 1, L. G. Watson, Esq., for *Bloksberg*, *Comte de St. Priest*, and *Prins van Saxe Weimar*; 2, the Earl of Charlemont; 3, W. Jameson, Esq. Rest disqualified, having double spikes.

Ditto ditto, red ditto: 1, the Earl of Charlemont; 2, L. G. Watson, Esq., for *Bouquet Royal*, *Frederick the Great*, and *Prince of Wales*. Rest insufficient merit.

Ditto ditto, white ditto 1, L. G. Watson, Esq., for *Heroine*, *Prins van Waterloo*, and *La Tour d'Auvergne*; 2, the Earl of Charlemont. Rest insufficient merit.

Ditto ditto, Yellow ditto: 1, the Earl of Charlemont.
Hyacinths, single Blue: 1, W. Jameson, Esq. (names not given in list furnished); 2, L. G. Watson, Esq., for *Prince Albert*, *Grand Lilas*, and *Oron-dates*. Rest disqualified.

Ditto ditto, Red ditto: 1, W. Jameson, Esq. Rest disqualified.

Ditto ditto, White ditto: 1, L. G. Watson, Esq., for *Grand Vidette*, *Victoria Regina*, and *Voltaire*; 2, W. Jameson, Esq. Rest no merit.

Ditto ditto, yellow ditto: Insufficient merit.

Ditto, group of twelve, six single and six double: 1, the Earl of Charlemont; 2, W. Jameson, Esq. Rest no merit.

Auriculas, Green-edged, two varieties: 1, W. Plant, Esq., M.D., *Plantation*, *Monkstown*, for *Star of Bethlehem* and *Clegg's Dolittle*. Rest no merit.

Ditto, Grey-edged ditto: 1, Dr. Plant, for *Maryanne* and *Ne plus Ultra*. Rest disqualified.

Ditto, White ditto: 1, Dr. Plant, for *Taylor's Glory* and *Popplewell's Conqueror*. Rest insufficiently bloomed.

Ditto, Selfs ditto: Dr. Plant, for *Hannibal* and *Metropolitan*; 2, G. Pim, Esq.

Ditto, group of four, containing one of each of the above classes: 1, Dr. Plant, for *Hay's Apollo*, *Taylor's Glory*, *Star of Bethlehem*, and *Maryanne*. Rest disqualified.

Pansies (stand of 24): 1, Joseph Watkins, Esq.

Hand Bouquets: 1, Mr. Kirby, 13, Upper Sackville Street, and *Killester*; 2, Herbert Manders, Esq.; 3, Thomas Hutton, Esq.

SPECIAL PRIZES—THE HERBERT.

For group of Eight *Auriculas*, each different—awarded to Dr. Plant, for *Hay's Apollo*, *Metropolitan*, *Star of Bethlehem*, *Colonel Taylor*, *Taylor's Glory*, *Popplewell's Conqueror*, *Maryanne*, and *Waterhouse's Conqueror*.

The judges in this section desire to direct the attention of some of the exhibitors of *Hyacinths* and *Auriculas* to the eighth by-law of the Society, which should be most particularly attended to and enforced in future.

FRUIT TREES IN SHRUBBERIES.

I SHOULD like to see the Apple and Pear in more general use as ornamental plants, and want to know why they are not more frequently planted in places of moderate, or even limited extent, as suburban and villa residences, by intermixing them with common shrubby plants. For cottage ornées they are peculiarly adapted, and in the former places might be planted to a considerable extent, and would add greatly to the beauty of residences at this season of the year; and afford in the autumn some compensation, by way of set off, by contributing a supply of fruit in places where there is generally a want of it. The great beauty of the bloom of some varieties of Apples and Pears would of themselves entitle them to a place in our grounds, solely as ornamental plants; and I wish you could persuade nurserymen to make a selection for this purpose, as I imagine many country gentlemen would be induced to purchase them for their parks and homesteads for this property alone, if good-sized plants could be procured; and that proprietors of small places would be glad to introduce them. I say nothing of the Chinese Apples and Pears, which are just now in full bloom, and worthy of all the admiration they call forth; but having noticed for several seasons how really beautiful the bloom is of many varieties of Apples, I venture to suggest the matter to your readers. As for the Pear, it is when old one of the most picturesque trees to be met with, and for parks and home grounds invaluable as an ornamental tree, when in bloom. I strongly advise planters to try the Beurré Rance Pear, and three or four other new varieties; these have fine foliage and flowers, and a strong habit of growth, which, as they grow old, would prove useful ornaments to landscape scenery.

MALUS.

THE FLORAL MAGAZINE.

THE first number of this new floral periodical, conducted by Mr. Thomas Moore, contains figures of Camellia Countess of Derby, of which we gave a coloured representation in one of our earlier volumes; a new double fringed purple Chinese Primrose, which was lately shown to the Horticultural Society, by Mr. Turner, of Slough, and which is a great improvement on the ordinary double-blossomed kinds; four varieties of Persian Cyclamen, raised from seed by Messrs. E. G. Henderson, of the Wellington Nursery, St. John's Wood; and Messrs. Veitch's handsome silver-variegated Fern *Pteris argyræa*, of which some account has appeared in our pages of this year's volume. This, which is a free-growing stove Fern from Central India, requires a warm moist atmosphere, and may be cultivated in a soil of turfy peat, mixed with small proportions in bulk of loam and sand. When well grown, it is extremely beautiful; it is the first well-marked variegated Fern which found its way into our gardens. A couple of pages of letterpress, descriptive of the subjects illustrated, accompany each plate.

BRISTOL AND CLIFTON FIRST HORTICULTURAL FETE.

THIS took place at the Zoological Gardens, Clifton, on the 24th ult., and was most numerous attended by a fashionable company. The exhibitions of Chinese Azaleas, miscellaneous plants, and Orchids, were superb; and it is not saying too much in praise of the exhibition, when we add that, taken altogether, it was one of the best displays of the kind ever held out of London. The committee of management, with their excellent secretary, Mr. Grainger, have been indefatigable in their endeavours to make these shows popular, and so far have been most successful; and, independent of the exhibitions, their exertions have given a decided impulse to horticulture in the vicinity.

JOSEPHINE DE MALINES PEAR.

THIS comparatively new variety is not near so well known as it deserves to be. Mr. Parsons, gardener at Danesbury, Welwyn, Herts, exhibited some of it to the Horticultural Society on the 17th of January last, and as the fruit proved excellent, a first prize was awarded to him. The specimens were scarcely middle sized, obovate, thickly covered with cinnamon-coloured russet; flesh melting, very rich, sugary and delicious. They were produced on a dwarf bush, which was stated to bear very well, but the fruit had been seldom larger than those exhibited: it had been planted about 12 years in old garden soil, the subsoil resting on chalk.

THE ROYAL NATIONAL EXHIBITION OF TULIPS.

THE twelfth annual exhibition of this Society was held in conjunction with the Cambridge Horticultural Society, at Trinity College, Cambridge, on Thursday, May 24.

Class A. Twelve Tulips: The first prize was awarded to R. Headly, Esq., of Stapleford, near Cambridge, for Leonora, Celia, Sarah Headly, Aglaia, John Linton, David, Sir C. Napier, Seedling, Everard, George Hayward, Polyphemus, and Demosthenes; in this class ten stands were exhibited. 2nd prize to R. H. Betteridge, Esq., of Milton Hill, near Abingdon, Berks, for Lord Denman, Seedling No. 2, Groom's Byblømen, Duchess of Sutherland, Aglaia, Mary Jane, Triumph Royal, Kate Connor, George Hayward, Royal Sovereign, Sir J. Paxton, and Everard. 3rd prize to Joseph Hunt, Esq., of High Wycombe, Bucks. 4th prize to Mr. T. Allestree, of Draycott, near Derby. 5th prize to Mr. Hepworth, Leyton, Essex. 6th prize, Mr. Thos. Westbrook.

Class B. Six Tulips: 1st prize to R. H. Betteridge, Esq., for Seedling No. 2, Queen of the North, Heroine, Aglaia, George Hayward, and Lord Raglan. 2nd prize to Mr. Joseph Godfrey, Chellaston, near Derby, for Queen Charlotte, Gem, Heroine, Triumph Royal, Vivid, and Royal Sovereign. 3rd and 4th prizes to Mr. Hepworth. 5th

prize to Joseph Hunt, Esq. 6th prize to H. Steward, Esq., York. Eleven stands were exhibited in this class.

Class C. Three Tulips : 1st prize to Mr. Joseph Godfrey, for Aglaia, Duke of Devonshire, and Lady Denman. 2nd prize to R. H. Betteridge, Esq. 3rd prize to H. Steward, Esq. 4th prize to R. Headly, Esq. 5th prize to H. Steward, Esq. 6th prize to R. H. Betteridge, Esq. Nineteen stands were exhibited in this class.

Class D. Three rectified or broke Tulips, seedlings : 1st prize to R. Headly, Esq., for John Linton, Pactolus, and Leonora. 2nd prize to Mr. Thos. Westbrook, for three seedlings. 3rd and 4th prizes to Mr. Hepworth.

Class E. Single blooms, of rectified or broke Tulips, seedlings : 1st prize to R. Headly, Esq., for John Linton. 2nd prize to R. Headly, Esq., for Pactolus. 3rd prize to J. Hunt, Esq., for Victor Emmanuel. 4th prize to R. Headly, Esq., for seedling bybloemen.

Class F. The best feathered Tulip selected from the whole exhibition as premier prize : Mr. Joseph Godfrey, for Heroine. The best flamed ditto, R. Headly, Esq., for Aglaia.

Class G. Six breeders : 1st prize to R. Headly, Esq. 2nd prize to Mr. T. Allestree. 3rd prize to Mr. T. Westbrook. 4th prize to Mr. Hepworth.

Class H. Three Breeders : 1st prize to R. Headly, Esq. 2nd prize to R. H. Betteridge, Esq. 3rd prize to H. Steward, Esq.

Certificates : 1st class to Headly's Demosthenes, Celia, Leonora, Sir J. Lawrence, and John Linton ; and to Hunt's Victor Emmanuel. 2nd class to Headly's Pactolus and General Havelock.

[Our remarks on this exhibition must be deferred till our next number.]

WATERING POT PLANTS.

IN the operation of watering potted plants persons not practically familiar with plant culture are apt to make serious mistakes. Cultivators find by experience that an excess of water at the roots is very injurious to almost all plants, and hence it is usual to direct that great caution be used in the application of water, especially in the winter. The result is, that frequently the opposite extreme is fallen into, to the great injury of the plants. From the moment that the soil becomes so far dried that the fibres of the roots cannot absorb moisture from it the plant begins to suffer. Some plants can bear this loss of water with more impunity than others ; some again, and the Erica family among the rest, are in this way soon destroyed. The object in watering should be to prevent this stage of dryness being reached, at least during the time the plant is growing, and at all times in the case of those of very rigid structure ; at the same that excess which would sodden the soil and gorge the plants is also avoided. Within these limits the most inexperienced persons may follow sound directions for the application of water with safety ; but whenever water is given to pot plants enough should be employed to wet the soil thoroughly, and the dif-

ference between plants that require more or less water should be made by watering more or less frequently, and not by giving greater or lesser quantities at one time.

J. R. SMITH.

Flora Cottage, Norwood.

NOTES FROM KEW.

THE effects of the past winter have been here as elsewhere severely felt, many Coniferous and other plants having been greatly injured. Thanks to the genial growing weather we have lately experienced, however, these disasters are fast disappearing. Bushes of *Forsythia viridissima* and *Cydonia japonica* have been exceedingly gay, both on the open lawn and against walls this spring; the former being literally one mass of golden yellow blossoms, and the latter as red as a soldier's coat. Both are very effective plants, and bloom at a season when we have little attractive in the way of out-of-door flowers.

Under glass, considerable improvement is apparent in the management of some classes of plants. Orchids, for instance, whose bad condition has long been a subject of complaint, appear to be getting, though slowly, into a more healthy condition. The same may be said of Pitcher plants; and in a slate tank, in a small house, were many charming examples of water plants, and among them a splendid specimen of the Madagascar *Ouvirandra fenestralis*, with open skeleton lattice-like leaves, at least 15 inches in length, and 7 inches in width. The Royal Water Lily (*Victoria Regia*) was also growing beautifully here; in the house specially set apart for its culture, it has not hitherto been found to succeed so well.

In the large Palm-house considerable alterations have been recently effected. Many of the fine specimens with which this house is furnished having reached the roof, it became necessary to lower the tubs in which they were growing into the floor. This has been done, and now they may be seen growing in neatly constructed beds of soil, kept in its place by means of green painted side-boards, surmounted by little wire fences. Passages have been left between the beds, which have a tasteful and neat appearance. Many of the *Musas* are fruiting. Other improvements of lesser magnitude, but no less importance, have also been made in this house, which, owing to the number and variety of the attractions it presents, is always a favourite one with visitors.

The new conservatory, which is to relieve the New Holland houses of their over-crowded stock, is now about to be erected between the Palm-house and the Chinese Pagoda, and when finished, owing to its ample proportions, will form not only a useful but a conspicuous object. A lake, too, of large extent is, we are told, to adorn the ornamental grounds; and the Botanic Garden itself has lately been enriched by the addition of numerous hardy trees of a decorative character.

Lectures are to be given to the young men employed in this establishment, the usefulness of which, not only as a place of great public

resort, but as a means of instruction and intelligent recreation, is universally acknowledged.

A few of the more important new plants that have lately been added to the collection, by the late Mr. Barter and others, will next occupy attention.

HORTICULTURAL FETE AT BATH.

THE first grand horticultural fete of the Bath Hanoverian Band Committee took place on May 9, at the Sydney Gardens, in that city. The day was most propitious; indeed, in this respect, the Committee had their usual luck. The display of plants, cut flowers, and fruit, was extremely grand, particularly, considering the unfavourable weather which preceded the exhibition. It is not too much to say that the Chinese Azaleas, whether as regards size of specimens or profusion of bloom, could not be surpassed, even in the metropolis; nor were some of the collections of stove and greenhouse plants, Roses, and ornamental foliaged plants, behind the above. Taken altogether, the exhibition was highly creditable to the skill of the Bath horticulturists. We have not space to enumerate the principal prizes, but we are glad to record how well the liberality and public spirit of the committee of management was responded to by exhibitors.

REPORT ON THE VARIETIES OF GARDEN BEET, GROWN AT CHISWICK IN 1859.

Nutting's Selected Dwarf Red (Nutting).—Leaves 9 to 12 inches high, dark blood-red. Roots chiefly underground, $9\frac{1}{2}$ inches in circumference; flesh dark red, sweet, without the disagreeable earthy flavour of which many kinds of Beet partake. Baked, the flesh is deep crimson of smooth close texture, remarkably sweet and well flavoured, and without the earthy flavour above alluded to. An excellent variety; it was decidedly the best of the varieties brought together on this occasion, both in appearance and quality, and was moreover remarkably true.

Short's Pine-apple (Turner); Syn: Pine-apple Dwarf Red (Veitch).—Leaves 6 or 7 inches high, dark purple; stalks tinged with dull orange. Roots 8 inches in circumference, the surface obtusely furrowed; flesh deep crimson. Baked, the flesh is of a dull deep crimson, tender, mild, sweet and well flavoured, though with a slight earthy taste. This excellent variety is remarkable for its dwarf compact habit, and for its uniformity and apparent fixity of character. It was raised by Mr. Charles Short, gardener to Sir William Beauchamp Procter, Bart., Langley Park, Norwich, and was introduced to the notice of the public by Mr. Turner, of Slough, who in 1854 distributed seeds of it for trial, under the name of Short's Beet. It was subsequently sent out by Messrs. Henderson & Co. as the Pine-apple Beet, and has also been known as the Pine-apple Compact Topped, and Short's Compact Topped. It is no doubt one of the best kinds at present in cultivation.

Sang's Crimson (Minier); *Syn: Veitch's Dwarf Dark (Veitch), Exeter*; *Carter's Small Selected Blood Red (Carter & Co.)*.—Leaves 15 to 18 inches high, greenish purple. Roots a foot long, $10\frac{1}{2}$ inches in circumference. When baked the flesh is of good colour and quality, but not equal to the preceding sorts.

Paul's Superb Crimson (Paul & Son); *Syn: Pine-apple Short-top (Carter & Co.)*; *Cutbush's Crimson (Cutbush)*.—Leaves about a foot long, blood red, much wrinkled. Root 8 inches in circumference, broad at the crown, surface warty; flesh in the raw state, bright crimson; when baked, a fine deep crimson, sweet and well flavoured, being mild and free from earthy flavour. It has the drawback of being liable to become forked, and on account of its broad crown it does not form a handsome root.

Melford Hall (Bass & Brown).—Leaves from 12 to 15 inches high; stalk slender, purplish crimson. Roots $9\frac{1}{2}$ inches; crown tapering; flesh bright light purplish crimson, alternating with white zones. When baked, it was found to be similar in quality to *Sang's Crimson*.—*Horticultural Society's Proceedings*.

CRYSTAL PALACE EXHIBITION.

THE Company's grand floral fête of the season took place on Saturday, the 26th ult., and, taken altogether, was the best May exhibition we ever saw. Notwithstanding that the weather was unfavourable; owing to heavy showers which fell at intervals throughout the day, and which no doubt prevented many from being present who otherwise would have attended, there was a large and fashionable company present, to whom the attractions of the exhibition seemed to afford the highest gratification, judging from the great interest which they took in criticising the superb specimens of horticultural skill which had been arranged for their inspection. It was also no small advantage for the assembled visitors to scrutinize at their leisure the rich treasures which Flora and Pomona had provided without suffering any inconvenience from the weather outside, and to ramble through the vast area of the building, where fresh objects either of instruction or admiration met them at every step. The value of the Crystal Palace for large meetings of this kind was never made more apparent to our senses than on Saturday last, when such an exhibition, if held in the open air, would have been altogether a failure, so far as comfort was concerned.

As usual, the collections of plants were arranged on each side the nave and south transept. On entering the building from the west, banks of Pelargoniums on the one side, and of Roses on the other, had a fine effect; both classes were in superb condition, both as regards freshness and abundance of bloom. The Roses, in pots, from Messrs. Paul were the admiration of everybody; the health, symmetry, and freshness, which characterized this collection was universally admitted. Nor was the group from Messrs. Lane far behind; and Mr. Francis had some splendid plants, which would have stood well on ordinary occasions, but against his powerful competitors he could only expect a

third prize. We regret there were no amateur collections, owing probably to throwing all the classes open—a new feature, on which we learn the judges were to be called upon to give a special report.

Let us now for a moment notice the arrangements. In the centre, on account of the orchestra interfering on one side, a complete uniformity could not be maintained; nevertheless, the disposition of the groups was very satisfactory. It was at this point the full effect of the assistance given by groups of statuary to the masses of plants was most apparent. Nothing could possibly be more striking than the effect the statuary here had, rising, as it did, from among masses of Azaleas—the glowing colours of which appeared to warm up and give a tone to the sculpture. It is possible that the Azaleas themselves would have looked better had the gradations by which they rose above each other on the stages been higher and wider, so as to have shown us more of each plant, individually. But then we must recollect that these Azaleas are progressing in size each year, and we expect *grow faster* than the *stages*, which would almost require widening and rising every year to meet the increased demands made upon them.

The classes for Orchids and stove and greenhouse plants, both fine foliaged and otherwise, were strongly supported—indeed, never more so; and in some cases the competition was very close, and required all the discriminating power of the censors to arrive at a just conclusion as to their respective merits. The fruit was arranged on a long table in the south transept, surrounded by mixed classes of plants. We need scarcely say, that the season just passed has been one of the most trying ever experienced by the forcing gardener. The winter has been long and cold, and the absence of solar light greater than usual, even in England. It was, therefore, most satisfactory to witness, by the productions exhibited, how completely British gardeners had overcome the natural obstacles of a bad climate. Pines, however, were only of an ordinary character. Black Grapes were generally very superior; dishes from Messrs. Hill and Henderson, so much so, that they had each the post of honour assigned to them, each having a first prize. Mr. T. Frost had also some fine bunches, but apparently scarcely ripe enough. There were several other very good Grapes exhibited in the Hamburgh class, and a dish of jet black Prince Grapes from Devonshire, which were all that good cultivation could make them. In white Grapes, the only dish worth noticing was the Muscats of Mr. Embry; but then they were *perfection*, and the best Muscats we ever saw in May. Peaches and Nectarines were very good; of the latter, Mr. Henderson (Trentham) had a dish of highly-coloured Violette Hatives, which most deservedly were first; the best Peaches (equal first) were Violette Hatives and Royal Georges. Melons were generally good. Cherries, particularly the Circassian, Downton, and May Duke, from Trentham, were very superior. As usual, Mr. Smith, of Twickenham, carried off the prize for Strawberries; this year, he had a rather new kind, called Empress Eugenie, remarkable for its deep red colour and large size; the flavour, for a forced Strawberry, we were told, was also very good. This had the first prize, Sir Charles Napier, a now well-known Strawberry, the second; and the new Oscar, the third. Of

this latter, though very large, and in every respect a first-class fruit, it was scarcely in so good condition as the other. Some good Citrons, Oranges, &c., were shown, and a brace of fine Cucumbers. We may add that no prizes were offered for collections of fruit, and beyond the Empress and Oscar Strawberries mentioned above we observed no novelties.

Of new or rare plants, the greatest number came from Mr. Low, of Clapton; among them were the singular looking *Alocasia metallica*, from Borneo, a *Caladium*-like plant, with large polished metallic-looking bronzy leaves; *Sphærostemma marmorata*, also from Borneo, a climbing stove plant, with large ovate acuminate green leaves, beautifully mottled with silvery white—somewhat in the way of *Cissus discolor*; the charming pale green veined *Anætochilus petola*; a curious looking little Bornean Fern shown under a bell-glass; and the Hoya-like *Plocostemma lasianthum*, figured by us in the January number of our volume for last year. From R. Warner, Esq., of Chelmsford, came some handsome varieties of *Lælia*. Messrs. Jackson, of Kingston, sent *Quercus bambusæfolia*, and an *Ilex* from upper India. Mr. Ivery, of Dorking, furnished the red hairy stemmed *Begonia Leopoldi*; and from the Rev. Mr. Ellis, of Hoddesdon, came a brown spotted pale sulphur-coloured plant, stated to be a *Cypella*, from southern Africa. We also noticed a pretty little deep purple-flowered *Phlox*, with a dark eye, apparently of the Drummondii breed; and near it, though not shown as new, were two extremely well flowered plants of the highly fragrant *Rhododendron Dalhousieanum*.

Of new *Pelargoniums* and other florist's flowers, of which several were shown, we hope to give a full account in our next number.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—Get the seed pods and faded blooms picked off plants that have done flowering, and remove them as soon as convenient to a rather close warm house, to encourage free growth. Keep them well shaded, and the atmosphere as moist as possible, syringing the plants freely night and morning during bright weather. Plants which require more pot room should be shifted as soon as they are out of bloom, and the shoots nicely arranged, so as to cause the young wood to grow in its proper place and form; and weak back shoots not required for filling up the plant should be cut out, and the wood should not be left too thick. Young plants of new or other varieties, which it may be wished to increase the size of as fast as possible, should be kept near the glass in the stove or some warm house where they can be shaded from sunshine and afforded a moist atmosphere. See that these are not allowed to suffer through the want of pot room, and stop over luxuriant shoots as may be necessary to secure a regular growth. Plants being kept for late blooming should be placed in a shady situation out of doors where they will keep equally well as in a north house, and will be benefited by the night dews, &c., but

they must not be exposed after the flowers begin to open. See that the whole stock is free from thrips, and apply tobacco smoke or some other known cure directly this pest makes its appearance. Camellias which were started into growth early will have set their buds, and may be placed in a shady situation out of doors, unless they are wanted to bloom early in autumn, in which case they had better be kept in heat until the buds are as large as large Peas, and then be removed to a cool airy house, where they will not be so liable to make a second growth as they would if placed out of doors. Those making their growth should be kept rather warm, syringing them freely morning and evening, and shading from bright sunshine. Plants requiring more pot room should be shifted at once, and see that all are clear of insects. *Conservatory.*—Careful shading, and abundance of moisture in the atmosphere, will be essential here in order to preserve the beauty of Azaleas and other hard-wooded plants; and these are so beautiful as to deserve any amount of care which will prolong their beauty, if but for a few days. The surface of the beds should be kept constantly moist—paths and every available surface sprinkled two or three times a day during bright weather; giving air freely during the day, and a little left at night, will prevent a stagnant atmosphere, or the blooms being injured by damp settling on them. Remove plants directly their beauty is over, and replace them with others in full bloom; or, if these are scarce, with ornamental or variegated foliaged plants from the stove, many of which will do perfectly well here for two or three months, provided they are placed out of the way of draughts, and kept rather close at first. Attend to regulating the growth of the twiners, and see that these, and specimens planted in the beds, are properly supplied with water at the root, and also clear of insects. *Cold Frames.*—These will now be cleared of the bedding stock, and will be extremely useful for growing Balsams and many similar plants for furnishing the conservatory in autumn, and will also furnish the best possible accommodation for young specimens of the more tender greenhouse plants, as Boronias, Gompholobiums, &c., &c.; and, indeed, young stock of all kinds of greenhouse plants will do better here for the summer than in the house, or placed out of doors. The finer kinds of shrubby Calceolarias are also well worthy of notice for blooming in the conservatory after the hard-wooded plants are over; and, if a stock of these are in hand, they should receive a liberal shift, stopping and tying out the shoots, so as to secure stocky well furnished plants, and be placed in the cold frames, where they can be shaded from bright sunshine, and afforded a moist atmosphere, and kept clear of aphids by gentle fumigations as may be necessary; and they will form nice plants for blooming in July and August. Seeds of these sown now will, with ordinary care, make fine plants for next season, and are not so liable to go off at the collar as plants from cuttings are when stopped and kept for late blooming. *Flower Garden.*—If not already done, finish planting out as soon as possible, and get all plants liable to be injured by being blown about by high winds pegged at once; and Dahlias, Hollyhocks, &c., secured to their stakes. Attend to the whole of the stock with water as frequently as may be necessary until they get well established, giving a

thorough soaking every time water is applied, for surface sprinklings leave the roots dry, and are of very little service to the plants. *Greenhouse*.—Large specimens of the hardier kinds of greenhouse plants may now be placed in a sheltered situation out of doors, where they will be shaded from the midday sun; but care must be observed to protect them from heavy rains, either by having a waterproof cloth which can be stretched over them, or by laying the plants on pots on their sides. Those that require repotting should be kept in the house after shifting until the roots get hold of the fresh soil. Attend well to young stock, which will now be growing freely; keep the shoots nicely regulated, and shaped as may be necessary, to secure well-formed specimens, and use every care to afford these a moist atmosphere, sprinkling them overhead early on the afternoons of bright days, and reducing the air; but, as already stated, young stock will be better in pits and frames for the summer than in this house. Spare room in this house may be occupied with Fuchsias and other soft-wooded plants for the conservatory. *Stove*.—Keep a sharp look-out for insects here, and if red spider makes its appearance upon Dipladenias or other plants, the foliage of which will not bear a very liberal use of the syringe or engine, it must be washed off with the sponge—examining the affected plants frequently, to make certain that the pest is eradicated, for if this is once allowed to gain a footing, it will speedily ruin the finest specimens. Also keep clear of aphids and spider by gentle fumigations as often as may be necessary, but be careful to have the house and foliage perfectly dry before smoking. Keep the atmosphere moist by frequently sprinkling the paths and every available surface, giving the plants a good moistening with the syringe every afternoon before shutting up the house; but avoid wetting the heads of Ixoras, as these are apt to drop their blooms if syringed overhead after they are in a forward state. Attend to providing a supply of plants for autumn and early winter blooming.

Hardy Fruit.—This is a busy month among all trained fruit trees. The finger and thumb must not be idle, for the trees will require going over often, and the points of the young *strong* shoots pinched out, or removed altogether, according to circumstances, the object in view being to equalize the flow of sap, and lead it from the strong to the weaker branches—consequently balance the strength of the trees. Wall trained Pears especially should be gone over in time, and the young shoots thinned and stopped, to admit light and air among the fruit and foliage, and which will also greatly facilitate the formation of fruit buds for the following season. Neglecting this operation, and allowing a mass of useless shoots to grow at will till after midsummer, and then mown off at once, as is often the case, is one of the principal causes why so many wall trained Pear trees are so unfruitful. Peach trees will now be getting free from green-fly, and if the weather is favourable they will be making rapid growth. Attend to the thinning and stopping of shoots, but this must not be done too severely, although the shoots ought to be sufficiently thin to admit light and air to the foliage; sufficient shoots should be retained to shade the main branches from the sun, otherwise they are liable to be scorched, and greatly injure the trees. Use the garden engine occasionally, to clean the

trees; and dust sulphur on the shoots if mildew makes its appearance. If the weather sets in hot and dry at the time Strawberries are swelling and ripening their fruit they will require watering often. Tie up the heavy fruit to small sticks, such as the British Queen, or any other kind that does not colour well at the point; it will well repay the trouble. Look over Gooseberry bushes, and watch the attack of caterpillars; hand picking is a good plan to rid the trees of this pest. Thin the young shoots in the centre of Currant trees, and pinch out the points of the remaining shoots, for the purpose of checking the ravages of green-fly. Manure water will greatly assist the trees and fruit at this period of their growth. *Forcing Ground*.—Do not allow the heat to decline in the Cucumber and Melon beds, but attend well to the linings by turning and adding fresh stable manure; this will guard them from injury should sudden changes in the weather occur, which would otherwise bring on mildew and canker. Keep the plants thin of shoots, and stop Cucumbers at every joint. Give Melons a good soaking of water where the fruit is swelling; avoid shading if possible; admit plenty of air; syringe and close early, but when the fruit is ripening less moisture is needed; sow Melons for latest crop, and Cucumbers to follow in succession. *Peaches*.—Plenty of air is required, to give colour and flavour to the ripening crop of fruit. An increased day temperature, with moisture, may be given to houses when the fruit is swelling. Late houses require the usual treatment. *Pines*.—Still keep up a good moist heat to Pines swelling fruit; also to the succession plants, with a liberal supply of water, and shift the young plants as they may require it. Avoid much shading, and attend to previous directions respecting airing, temperature, &c. *Vinery*.—When the nights are cold keep a little fire-heat to the late vineries, more especially when in bloom. Muscats will also require fire-heat, except in hot weather; a temperature of 70° at night ought to be maintained, and may rise to 90° through the day, with air and moisture in proportion. Reduce the moisture as the fruit approaches to maturity. Ripe Grapes will need abundance of air throughout the day, to keep them from shrivelling. Assist Vines in pots, by frequent waterings with liquid manure, two or three times a week. *Kitchen Garden*.—Embrace every favourable opportunity of using the hoe among all crops, as well as in other parts of the garden; prick out and plant Celery for early crop in trenches previously prepared; prepare more trenches, as before directed, to be in readiness for planting the end of the month; plant out Cauliflowers, Cabbages, Lettuces, &c.; sow Cardoons immediately if not already done. Sow Runners, French Beans, and Peas, for succession; the Marrow Peas are good for sowing in the early part of the month; it is a good plan to sow them in trenches, six inches deep, for the sake of moisture; the rows should be a good distance apart, and the Peas thin in the row. Sow Lettuces, Walcheren and other Cauliflowers, Snow's Early Broccoli, and also some Cape, early in the month—the Florentine Cape, if it can be obtained true, is the best; sow Coleworts not later than the middle of the month, for use in the autumn—the Rosette is the most useful sort for a private garden. Another sowing of Broad Beans may yet be made; likewise a crop of late Carrots, the beginning

of the month, and plant Brussels Sprouts as soon as the plants are strong enough to go out. Go on with the thinning of seed crops, such as Beet, Onions, Carrots, Turnips, &c.; another sowing of the latter should be made.

FLORISTS' FLOWERS.

Auriculas will now be in their summer quarters, that is, in some position where they are shaded from the sun; under a wall with a north aspect is best, so as to have also a felt cover, to let down over them in case of heavy rain. Great attention should be paid to the cleanliness of the plants, and a watch kept on a nasty caterpillar, which at this season gets into the heart of the plants, and sometimes eats them across. Keep down green-fly—a difficult matter, and only I believe to be effectually done by going over the plants with a camel's-hair pencil frequently. Do not allow the plants to flag for want of water, the supply of which must be regulated according to the weather. The bloom this year has been fine, and a great encouragement to growers. *Carnations* and *Picotees* will now require unusual attention as to tying and watering; this latter, if the hot weather of the present week continues, will be often needed, and the pots should be kept clear of weeds; and, about the latter end of the month, may be top-dressed with a compost of leaf-mould, loam, and rotten dung. Disbudding should also be now practised as the side buds appear—not more than three or, in the case of some very strong growing varieties, four should be left on each plant. Syringing is very beneficial to the health of the plants. *Dahlias*.—Planting out will now have to be completed. The best plan is to put the centre stake into the ground first, and plant your Dahlia close to it; supply liberally with manure, and give plenty of space to the plant; if the weather should prove dry, the watering pot must be called into requisition. All growers of this fine flower have learned that it requires plenty of elbow room. *Pansies*.—These will now be going out of bloom, and their most ticklish time is coming on. They should be placed in as cool a position as possible; and, on the first appearance of mildew, the plants should be well dusted with sulphur. Cuttings should also be taken off, as the plants may possibly die off in the hot weather, leaving you minus your variety. *Pelargoniums*.—You may now principally employ yourself in admiring the beauties of your stock. They will be opening now every day. Avoid watering at night—do it in the morning, and your plants will continue much longer in bloom; and, oh! avoid “Gishurst.” How can people puff such things? Whether it will kill the fly I know not; but the other day I weighed out the two ounces, put them into a gallon of water, and syringed. The result is my plants are all covered with a nasty whitish mark—very much as if I had attempted a miniature whitewash. I wonder, looking at the mess before using, I did not at once see what must be the result, but have paid well for my folly. *Pinks* should be disbudded as soon as possible. The earlier they are taken off the better will be the bloom, but, of course, respect will be had to the varieties, some of which bear much more than others.

Deal, May 22.

D.



Azalea.

1. *Etoile de Gand*. (Spae) — 2. *Carnation*. (Every's)

THE AZALEA.

(PLATE 166.)

OF all plants in cultivation, this is unquestionably the most effective and useful for decorative purposes; and when seen in the form of large handsome well-bloomed specimens, it is certain to attract even the attention of persons who in general care but little for either plants or flowers. Compared with *Ericas* and most hard-wooded plants, *Azaleas* are easily managed; for they are not so readily injured by any slight excess of either drought or wet at the root, are not so particular as to soil, and can be grown successfully with such accommodation as would ruin most of our favourite hard-wooded plants; and where sufficient accommodation is at command, a succession of blooming plants may be secured from the beginning of November to the end of July—we had almost said the year through, but with such means as are at command, in most places this may easily be effected during six months in the year; and we hope that we shall soon be as familiar with finely bloomed specimens of *Azaleas* in December, and through the winter and spring, as we have hitherto been in May.

Possessing, as the *Azalea* does, almost every quality which could recommend it to the notice of all classes of cultivators, it is not surprising that many persons are striving to obtain improved varieties, and that we are every season offered several new kinds, each being recommended as at least better than anything of its class in cultivation. There are, however, among the varieties which have been some time familiar to us so many of first-rate excellence in every respect, that it can hardly be expected that all or nearly all the new varieties which have been raised in this country, procured from the Continent and put into circulation here, should prove decided improvements upon our old and deservedly favourite sorts; and perhaps we ought to be satisfied if all the new varieties offered are really good, and to find amongst them occasionally one which proves a decided advance upon anything previously known to us of the same or similar colour. That *Etoile de Gand* will prove one of those decided advances we have every confidence. As will be seen by the plate, it is new in the style of its markings, and may be considered very distinct from anything previously introduced. In habit, growth, &c., it resembles *variegata*; and if it proves constant, it will at least be equally a favourite with this fine old variety, and will find a place in the most select collections as one of the best varieties known. From its resemblance in habit to *variegata*, we judge that it will prove, like this variety, a late bloomer or easily retarded for this purpose; and if so, we need not say that it will be equally valuable to exhibitors as *variegata*, *Gledstanesi*, and *crispiflora*; and if it proves constant in its colours, &c., it can hardly fail to become the most general

favourite of all the late blooming kinds we possess at present. It is of continental origin, however, and if it should unfortunately prove as inconstant in its colour, &c., as Beauty of Europe and some other varieties from there, it will not realise the description given of it in the "Illustrated Bouquet," by the proprietors of that work, who have distributed it in this country. But judging from how it has bloomed, wherever we have seen it, this season, it will prove superior to the description given of it—certainly to the Messrs. E. G. Henderson & Son's description of it in their list of Azaleas in their catalogue of 1859, where it is described as "large round lobed white." The other variety figured is one in the possession of Messrs. Ivery, of Dorking, to whom we are indebted for many of the finest varieties in cultivation, and this promises to prove worthy of the reputation which these gentlemen deservedly possess as improvers of the Azalea. We have confidence in both varieties, and believe that our readers will thank us for having introduced them to their notice; and we recommend all lovers of Azaleas to use their best endeavours to secure good-sized specimens of Etoile de Gand as soon as they possibly can. Having said that this variety is similar in habit to variegata, we need hardly add that it should be grown only in plants worked upon phœnicea, and that plants upon their own roots may be expected to be liable to die suddenly, after the fashion of an Erica and some other hard-wooded plants.

We have, in previous numbers, given lists of those varieties which we considered the best in cultivation. These were, however, perhaps too extended for many persons commencing their culture, and we will now give a list of the twelve kinds which we should select, if we could grow only that number of specimens, and add to this a farther selection of those we consider to be the next best twelve varieties. Our selection of twelve would be as follows:—Admiration, Criterion, Etoile de Gand, Extrani, Gem (Ivery), Gledstanesi, Sir H. Havelock (Frost), Iveryana, Juliana, Perfection (Frost), Perryana, variegata. It will be observed that this short list contains several comparatively old kinds, but these are fine in every respect, and we are not satisfied that they are surpassed by any of more recent introduction. The Messrs. Ivery have sent out two, viz., Flower of the Day and variegata superba, and recommended them as being superior to Iveryana and variegata. We hope that they will prove to be so, but must see more of them than we have yet done before displacing those fine varieties to make room for them. The next twelve we should select would be as under, viz.:—Beauty of Reigate, Chelsoni, crispiflora, Distinction, Duc de Brabant, Illustris nova, Leeana, Perfecta elegans, Roi Leopold, rosea elegans, rosea superba, Standard of Perfection (Epps). Here, as in the former list, it will be observed that a considerable proportion are not of very recent introduction, but we have not seen amongst the newer varieties any which we consider worthy of being placed before the older varieties. We must remark, however, that those we have named are all that we would select for exhibition purposes; and that if we were making a selection intended for decorative purposes principally, it would probably have included such varieties as arborea purpurea, Barclayana, Eulalie van Geert, Glory of Sunning Hill, Louis Napoleon, Miltoni, Georgiana,

Petuniæflora, Sir Charles Napier, Stanleyana, Souvenir de l'Exposition, and The Bride, which are all either remarkably showy sorts or very distinct in colour, and are at least well suited for decorative uses. Regarding Eulalie van Geert, we almost incline to doubt whether it should not have been included in the second selection given above. Last season, we determined to discard it because of the bad shape of its flowers, and in consequence the plants were not repotted, nor received any particular attention. They are now loaded with flowers of a fair size, which are not at all faulty as to shape, and in this state it is certainly a distinct and fine variety; and we shall give it another trial, bearing in mind that it has produced the finest blooms when stinted for pot room, and not over kindly treated otherwise; this is a late bloomer, and should not be selected for forcing or early use. Glory of Sunning Hill has the good quality of remaining longer in beauty than almost any other Azalea. Louis Napoleon is remarkably distinct in colour, and its only fault is that its flowers are double; when they come single, which is occasionally the case, it is one of the most distinct and pleasing varieties we know. Sir Charles Napier and Miltoni are remarkably showy vigorous growing varieties, with finely formed round flowers—we have measured some this season fully four inches across; and The Bride is about as good a white as we at present possess, although not as good as we wish and hope to possess soon. Ivery's Queen of the Whites proves with us a poor thin flimsy flower, equally faulty in colour as in substance—certainly very different from what we expected of it, and decidedly inferior to several whites, although we have not a really good one. For decorative purposes, *amœna* is deserving of particular notice, for it is hardy or nearly so; and if grown in heat early in spring, and placed out of doors in summer, it flowers any time during the autumn or early winter with the assistance of a very little warmth, and forms an extremely pretty plant, and remains long in beauty. Bealii is nearly as useful for forcing, and forms a nice contrast with the above, and we hope Ivery's Bouquet de Flore will prove equally valuable for decorative uses as *amœna*. Some persons will doubtless think that we have not placed Barclayana where it deserves to be; but without denying that it is a fine Azalea, we dislike the green, which is so common in the centre of its flowers; and notwithstanding the large size and fine shape of the blooms, we have never seen a plant of it which we thought half so effective as Iveryana or Admiration; indeed, this variety sinks in our estimation every season.

By way of conclusion, let us say that the selections given have at least the merit of being honest, so far as our means and judgment could make them so, and we have seen and grown most of the varieties which have been introduced of late years. It is very probable, however, that a further acquaintance with some of the newer varieties which we have omitted will induce us to think more highly of them than we have yet seen cause to do; and of such as Flower of the Day, and some others sent out last year, &c., we have not seen enough to warrant us in giving any opinion respecting them. We feel certain that beginners who may be guided in their selection of varieties by these lists will not be disappointed with any one variety in them. We

advise beginners to procure all their plants grafted upon phœnicea, for although some varieties do very well for a number of years upon their own roots, most of them are liable to die at the collar ; they grow equally well, and are safer grafted upon phœnicea.

THE PEACH IN 1860.

WE have frequently noticed in our pages the difficulty which of late years had attended the growth of the Peach on open walls in our climate, and at the same time have recommended glass as the most certain, and in the end the cheapest mode of protecting the Peach and Nectarine, with the view of securing a crop of fruit. The state of Peach trees in the open air was bad enough when we penned our former remarks, by way of enquiry, as to the best means of protecting them from the inclement nature of our seasons ; but judging from the appearance of our own trees, and from all we can learn besides, there is now but little hope for the successful culture of the Peach on the open wall. Hundreds of trees from two to twenty years old and upwards are already dead, and the labour and expense of years have been destroyed by the past winter and spring. With this evidence before us, it would be, in our opinion, a waste of time and money to attempt open-air culture of the Peach again, unless in very favoured spots. It therefore remains for us to consider the most certain means of obtaining annual crops of this delicious fruit at an expense which will bring it within the limits of ordinary garden appliances ; for unless we can prove that glass will grow the Peach profitably—taking the average of a certain number of years, say seven—we had better give up the experiment, and plant those kinds of trees which are found to succeed.

From long continued observation and enquiry, we consider that the average duration of the Peach, on the open wall in Britain, barely reaches 15 years, and in many situations it is much lower than this. If we take three years as the time for the trees to become fruitful after planting, and allow two for the diminished supply before decay and disease render them profitless, we have only 10 years out of the 15, when the tree, under favourable seasons, produces a crop ; and when we come to deduct from this the failures which arise from unfavourable seasons, we can only calculate on seven or eight years out of the 15 in which the Peach furnishes a profitable return. This may be exceeded in some situations, but certainly it is not attained in others ; and we are inclined to take it as a fair average result of the country. This will show us how expensive Peach culture on open walls is—nor is this all. The details of cultivation are much increased in unfavourable seasons, and the cost of keeping down red spider, greenfly, &c., amounts to a considerable sum ; and we must also take into calculation the expense of canvas, bunting, netting, &c., the materials usually employed for spring protection, with only partial results.

We think we are within the mark when we state that a glass cover for a Peach wall can be constructed for 6*d.* per foot superficial ; to this will have to be added ventilators, doors, ends, and

divisions; but to these items of expense we will allude more fully next month. In the meantime, however, let us look at the advantages to be gained by having a Peach wall covered with glass compared with a wall under the system of culture in ordinary use. If the most is to be made of the glass covering, it is evident that it should slope from the wall at an angle of about 45° , and that space for ventilation should be left top and bottom. On this account, the glass need not be nearer the soil of the border than 20 or 24 inches, and about the same distance should be left between it and the coping of the wall. This will permit the glass to be a fixture, so far as ventilation is concerned; and would afford accommodation for a double set of trees underneath, one against the back wall, and the other on a circular trellis springing from the front plate, and carried to within four feet of the back wall, but kept down, so as not to obstruct the light from the back wall, higher than 2 ft. 6 in. from the floor. Considering that the lower part of the wall would not be altogether without its uses, the gain would be about two-thirds more, as regards training surface, which might be greatly increased by running up a vertical trellis to the glass every 12 or 15 feet, on which trees are found to thrive remarkably well.

We find therefore that a wall 100 feet long, covered with glass, will afford nearly, if not quite, double the surface for training which an ordinary wall gives. We must next carry our calculations a little farther, to see what other advantages are gained by placing a glass covering over the trees.

We have stated above that a full crop of fruit is not obtained by the out-door system oftener than seven or eight years out of the 15, which we gave as the average period of duration in which the Peach continues in a profitable condition. Now, with the protection of glass, taking the same time (three years) for the tree to become sufficiently large to carry a moderate crop, we may fairly calculate that the duration of the trees so protected will be much increased; and taking the duration of the Peach in houses where it is not much forced for a guide, we shall not be far out if we add eight or ten years to the average of trees grown upon open walls, increasing it to 23 or 25 years instead of fifteen, as the period we may expect the Peach to continue productive. So much for the duration of the Peach under glass. We may also consider that after the third year, a full crop each year may be relied on if ordinary care is taken of the trees, as to training and ripening their wood. Respecting this latter, one great difficulty in ripening the wood of wall Peaches in wet autumns will be removed; for as the greater part of the roots of the trees will be covered with glass, wet can be excluded from the border at pleasure, and after the fruit has done swelling, no water need be permitted to touch it. By withholding water, the border will soon become dry, and this will check the growth of the summer's shoots, and induce that early and complete maturation of the wood, on which the certainty of the ensuing year's crop mainly depends, other conditions being favourable.

We attach no importance to what we have heard, but not experienced ourselves—that the crop of Peaches has been destroyed in orchard houses by the frost having killed the bloom. This may have occurred;

but surely when a very low temperature is experienced, common tanned netting, or tiffany, thrown over the surface of the glass would prevent any mischief from taking place. And the occasions when such would be required are so few as to require no further comment.

We should not remove the covering in winter; there is no occasion for it, however well ripened the wood may be. Let the bottom and top ventilators, however, be removed or fully opened, that the air may play freely over the trees, but exclude wet, which not unfrequently induces gum, particularly in luxuriant trees. The glass, too, will afford a slight protection to a number of things which the gardener has always occasion to preserve. The wall should be trellised; it will be a small expense at first, but this will be repaid by the facilities afforded for training in comparison with nailing, and by the fruit not getting injured by nails, and the ease with which insects can be kept down, when the shoots are trained to a trellis, which need, however, not be more than a few inches from the wall.

The worst enemies to the Peach, in the shape of insects, are the black and green flies. Their destruction on walls can only be effected by washing with the engine or syringing with tobacco-water. During such cold seasons as the last, the remedy of washing was almost as fatal as the effects of the insects we wished to keep down; and to be continually using tobacco-water is expensive and troublesome; under glass, the complete extirpation of the aphides is readily effected by fumigation, without injury to anything; and if taken in time, one or at least two good fumigations will answer for a season. We have grown Peaches in houses frequently without requiring fumigation at all; the great point is, not to let aphides become established, but to attack them the instant they are seen.

We shall say nothing about forwarding the ripening of the fruit; this is not our object, though of course it may be done at pleasure; but at present we have only to compete with wall Peaches, keeping them, however, as late as they will ripen freely, to be worth eating. It is a mistaken notion to suppose that under glass the fruit would ripen much earlier than on open walls, and would not keep. The fact, as proved by orchard houses, is that, with full ventilation, the Peach does not ripen so early as on the open wall; with glass, therefore, you have the option of being either forwarder or later than with walls only; with the advantage of ripening such late French Peaches, as the Salway, Desse, Pavie de Pompone, &c., to perfection should a bad season occur.

We have no room to enter upon the question of the origin of the disease, which is mainly owing to the low temperature of the present spring following the severe frosts of last October; but there is one peculiarity about the dying Peach trees, which appears to have escaped notice, and which does not admit of so easy an explanation, and which is, that trees on east and west walls have not suffered nearly so much as those on south walls have done. We may probably notice this fact again, when considering the cost of glass coverings in our next.

ROSES ON THE MANETTI STOCK.

Preliminary observations.—I am still the friend of suitable Roses on the Manetti Stock, and, as far as autumnal Roses go, I see that there are many that may certainly be cultivated with success. With the exception of Lanei and the White Bath, both well budded and in strong condition, I know little of summer Roses on this stock. They do so well, I may say so grandly, on a half standard, that I do not require them on any other stock; they suit my situation, and I should say they were well adapted for high latitudes.

My present aim is to remove hasty conclusions with regard to some Roses on the Manetti stock, and to solicit a further trial under my treatment. I am the more induced to offer a few remarks after the visit, on the 11th of May, of two most distinguished amateurs,* and winners of five prizes at the two last National Shows; because, I believe that the Rose trees here, about 500, have left the impression on their minds that it is quite possible to cultivate successfully Manetti Roses. Indeed, I have, since the visit, received the following gratifying encouragement from one of them. He says:—"The more I have considered your method of dealing with your plants on the Manetti stock, the more I am inclined to approve of it; in fact, I may say of the Duchess of Norfolk, and of one or two others, I never saw better, or so good, here or elsewhere." My plan is, in selecting Roses, to accumulate numbers that do well on this or that stock, instead of seeking "varieties." Of some sorts I have 40 each on Manetti, of several 20 each, and they range from these numbers down to one or two plants per sort. On their own roots, or on Briars, I suppose, without counting, that I have 600. The Manetti Roses have been counted, and are rather above 500.

1. *A word to propagators.*—Bud the Manetti stock as low as you can; bud with such sorts only as are suited to it. Send out none that are not ripe in wood, or at least tolerably ripe. Advise your customers to stake and tie such as are grafted, as, when the head becomes heavy, especially if exposed to wind, they are liable to fall off. Advise them to keep, if possible, crinoline and hoops out of the ranks of grafted Roses. My oldest favourite, M. Laffay, fell a victim from the above last year.

2. *Ordering the plants*—As ripeness of wood is of consequence to the future prosperity of the plant, and as it is difficult to get really ripened wood on Manetti stocks, it is best not to hurry home Roses in November; but to ask the nurseryman to put a tally on such sorts as you want, and to send them at Christmas, or as soon after as the land will work freely. I believe that the only period of rest of this most wonderful stock is about December. Short, indeed, is their sleep; their motto is *nurquam dormio*. Close after Christmas here, in the middle of snow-flakes, they began to unfold their leaves at the head of the plants. It would be well for some Roses on this stock if they were not sent out till their second year. Unripe wood, and cutting it for budding

* C. Worthington, Esq., and the Rev. Mr. Helyar.

purposes when and where unripe, is injurious, the same applies to Roses on the Briar. I have lost several Briar Roses—good, and fresh imported, for this reason—which, had they been allowed to drop their flowers, would have lived.

3. *Soil*.—Manetti Roses grow well in both strong and highly-manured light soil, provided the stock does not lie soaking in water; from its being budded too high, and from the necessity of its being planted up to or over the collar, it does not like, though perfectly hardy, to be continually sodden. Even where the stock will live, delicate Roses will die in such a situation. It is, therefore, best to take up such ere the winter sets in, and to lay them up in “ordinary.” Some of the Roses here, nearest the river, have not wintered so well as the same have done higher up in the garden; still, even here, very hardy Roses, such as the Duchess of Norfolk, Cambaceres, and Jules Margottin, have wintered well, and those which have showed the effect of winter are now progressing favourably. I should say that Manetti Roses are less impatient of drought than Briar Roses, and liked best deep well-manured light land or friable loam; they will beat the Briar Roses hollow on dry banks. The Manetti stock itself grows immensely strong in heavy loam 100 feet above the top of my house. My Rushton glebe is there, and will grow from ten to thirteen sacks of Wheat per acre. Probably, where land is strong, the Manetti stock will send up too much supply for a delicate Rose on its top, which would, nevertheless, have done well had it been of free growth, and not cut too hard in the first place.

4. *Planting*.—Before you plant, cut out all eyes in the Manetti stock, and cut the points of the torn roots even, drawing your knife from the under part of the roots. Put in a line Roses of similar growth in habit. Cut none of the wood when you plant. Open a channel, and put all the roots one way; you will know better where to water, and thus, when “hands” are scarce, save much unnecessary trouble. If the stock is six inches from the base to the collar, bury not more than four inches (Nature never was a sexton), and earth up to or over the collar, like Potatoes. After the Manetti plant has got a good head, the exposure of the head is not of such fatal consequence.

5. *Manetti suckers*.—It is not true that Manetti stocks, properly handled, send up suckers, much less is it true that they send up more suckers than Briar Roses. Were they planted over the collar, and not cut hard, you would rarely see a sucker. The sap must find vent somewhere, and as it cannot find exit at the top of a Rose, especially of a slow grower, Nature drives out auxiliary channels, chiefly from the neck of the stock. When the first year is over, they will not send out suckers at all as long as the Rose is healthy, and you do not cut it too hard; the head having got the mastery, the stock lies in subjection.

6. *Pruning Manetti Roses*.—It is an axiom that Briar Roses, whether they are for poles, wall, or standards, should be cut tolerably hard the first year; this, however, does not hold good with Manetti Roses generally; it has been the chief cause of Manetti Rose failures. Being a super-succulent and early stock, doubtless the tops will die back; and if you cut in winter, and before general and unchecked

growth sets in, it will deteriorate back to at least two eyes below, although you cut it to a very strong, and to the most prominent one. I never cut till the Rose tells me *when* and *where* to cut; and both of these it will tell me when the time of general growth sets in. This year, I did not cut till the 8th and 9th of May, the latter being two days before my visitors came (Friday, 11th of May). I have not, from that time, seen one of them flinch. Their buds were formed, and to a good bud I cut them. In established Roses, I sometimes thin out a useless bit if the Rose is strong; and sometimes I cut off a fine stalk, buds and all, to a prominent eye, in order that this stalk may succeed the others on the same plant not so decapitated. This, however, is matter of judgment, dependent on a thorough knowledge of the habits of the Rose so treated. Cutting bouquets, with stalks long enough to hold in folded arms, in the middle of summer, I never have found injurious; this, however, is a matter of judgment. If the tree dies back in winter in any of its branches or stalks, don't cut below the base of the dead part, but just above it; that half inch will act as a seal and prevent bleeding. After growth sets in freely, there is less danger from bleeding, because the growing branch next the cut takes up the sap. Probably cauterising with a hot iron, or washing the cut with gutta percha dissolved in chloroform, forming a glue, might be found a useful bandage not only for Manetti Roses, but for the head of Dog Briars, which is often the seat of much mischief.

7. *Manure*.—Decayed horse, pig, and cow-dung, are good for Roses; privy dung, stale, is also excellent. I also use wood ashes, guano (be careful how you use these two), soot, stale liquid manure and water, a little common salt, maiden earth, strong loam, and road scrapings. You had better put to Roses, after exhaustion, one shovel of new stiff earth, and one of black manure, than two of black manure, only. Earth, however poor, where trees have not lately grown, is good for Roses and Strawberries. If your land is strong, get light earth, and vice versa. Liquid manure and guano water should be very weak, as they contain uric acid.

8. *The time to manure*.—Roses, Strawberries, and Raspberries, all seem to agree upon this, viz., that you can never over manure them; they also agree in respect of water. After the first bloom, I usually unseal the land, which is earthed up, like Potatoes, to cover the head of the Manetti stocks; and then I put on, over the earth, on their roots, all along the trench, plenty of black dung; and having drenched the roots with water, I seal up again, and water the top of the "bouts." In a day or so, I tread the "bouts" tolerably firm. By this plan, as the Roses seldom get a check, and as their foes are mostly dead, I procure a better series than the first. I have used this year, with Roses and Strawberries, five sacks of half-inch bones. On this I will report in due time.

9. *Stirring the ground in the spring and in summer*.—This may be done with advantage at all times on the surface; it is good to do it before rain or before watering; it should be done also tolerably deep before winter sets in, as it tends to make the ground healthy. Forking between the ranks is also conducive to the welfare of a stock, that we

are compelled to bury more or less deep. In time of growth, this forking and also superficially stirring the ground in the ranks will greatly hasten the buds for show, especially if you damp the ground moderately, and put plate glass, which causes a bottom heat similar to a forcing house.

10. *Manetti Roses for lawns.*—I have never tried this, but I intend to do so, as I rarely get a good Rose, though my lawn holes are 2 feet 6 deep, with a radius, free of Grass, of about from 15 to 18 inches; the two best for this purpose are the Duchess of Norfolk and Cambaceres. 100 of these two would look well in lawn holes, and find you in constant bouquets. The first is the best of all as a tree, and both are of erect stiff growth, and of most beautiful foliage. You cannot have too many of them. Jules Margottin is also highly suited for this purpose, and is one of the noblest Roses on either stock. I will take the two former Roses on Manetti, and Jules Margottin and Triomphe de l'Exposition on a Briar, for satisfaction, against any four Roses that I know on either stock. Constitution, fine bud and sepal, and fine foliage, are main points.

11. *Management of pot Manetti Roses, the first year, in the open ground.*—I have planted all, this year, with half-inch bones, and they grow rapidly; about a good double-handful is enough. Keep them tied to stakes, and, if the place is exposed, keep hurdles before them. If mildew appears, pinch off the top and diseased leaves; and having washed the plant well, sprinkle yellow sulphur over it. This has stopped it in the case of Eugene Appert (two plants) and Francis the First. Don't cut them at all for two years, and don't seek to force them to a premature blooming. Abundant blooming the first year causes the plants to dwindle. It is best, if they bloom at the end of the first autumn, to let the blooms drop off. Thin and useless wood may be cut out in summer, with a view to strengthen the main stalks. Under a south wall is the best place to rear them.

12. *Recovering a Manetti Rose after sickness.*—I saved Mdle. Godard, and 22 badly wintered Duchess of Norfolk, which I bought this spring at an average of $4\frac{1}{2}d.$ per plant, and which, with one or two exceptions, are now doing well, by the following plan:—I put them into a Cucumber frame, heated by the sun and stable manure, and restruck them. In a few days, they were full of new filaments, all up the stalks. I then planted them out with new maiden earth, black dung, and half-inch bones. Those that had long stems were planted in a leaning posture, and their lower roots were kept near the surface. These sickly plants were covered with verdant foliage before they were planted out, and most of them now have buds.

13. *The relative bloomings of Manetti and Briar Roses.*—The former are earlier and more continuous; the latter require a season of rest between the bloomings. Of these, I propose to speak on a future occasion. Manetti Roses bloom usually better than Dog Briar Roses the first year. When the Briar Rose is established, usually, its first series in the year is best; hitherto, the second series of the Manetti Roses has been better than the first series.

14. *The relative deaths of Briar and Manetti Roses during the last*

winter and spring.—Let us illustrate this by a patch, fall planted, at Rewston (my other living), about 300 yards from my house, on the other side of the river, where the land is better than here, but open entirely to the east, with but little protection from the north, and with high Thorn hedges on the south and west. Out of 28 purchased Briar Roses, nine died, two are weak, and two died to the stock, but are now doing well. Out of 137 Manetti Roses planted at the same time by their side, four died, and three died to the base, but have broken and appear to be doing well. If we draw a comparison between the two from my home Roses, which on the side and base of eastern hill and valley, where the winds are furious, the Briar Roses will suffer great disparagement. The Roses and Briars for budding, at both places, including a fine specimen of the Duchess of Norfolk, now in her fifth year, and planted against my north wall at the commencement of this dismal winter, were all shown to my two distinguished visitors. This last tree now stands over six feet, and covered with buds and fine foliage; a proof that Manetti Roses can be removed with success, and a standing memorial of Mr. Wood's good taste in introducing this fine Rose.

15. *Manetti Roses that I will guarantee to do well if this treatise is followed.*—Those marked thus “ ” are good bloomers and very nice ornamental Roses; the others are fit for show:—

Hybrid Perpetuals.—Baronne Prevost, Le Lion des Combats, Caroline de Sansal, Madame Schmidt, Jules Margottin, Duchess of Norfolk, Duchesse de Cambaceres, Mathurin Regnier, William Griffiths, Mont Carmel, Jacques Laffitte, Duchess of Sutherland, Madame Laffay, La Ville de St. Denis, Géant des Batailles, Mrs. Elliott, General Simpson, William Jesse, Baronne Hallez, Alexandrine Bachmeteff, Madame Place (small but perfect), Pæonia, General Jacqueminot, Dr. Marx, Madame de Manoel, Capt. J. Franklin, Angleterre, Triomphe de l'Exposition, Madame Vidot, and “Comte de Odart.”

Bourbons.—Acidalie, Dr. Jard, Reveil, Malmaison, Louise Odier, “Apolline,” “Paul and Virginia,” lovely, a continuous bloomer, and quite distinct.

Summer Moss.—Lanei and White Bath.

Tea, against a south wall.—Barillet Deschamps, Devoniensis, Gloire de Dijon. Teas must not be wintered in wet ground. These have been here two winters and one summer, and are now entering most successfully their second summer.

POT ROSES planted at the spring of 1859, and which are now fine strong healthy plants, well budded, and about to bloom (June 4). They are against a south wall, under the drippings of the tiles, without protection during this severe winter. Hybrid Perpetuals: Two Oriflamme de St. Louis, two Verschaffelt, two Anna Diesbach, Mons. Montigny, Lælia, Chabrillan, Ardoissée de Lyons, Gloire de Lyons, Beauté de Royghem, Armide, Edith de Murat (a Bourbon); this latter has now two beautiful medium-sized flowers on her; she bloomed abundantly last year; she will make one of the best forced white Roses; as a bush she is beautiful. Gloire de Lyons, Montigny, and Oriflamme, were the only Roses of this lot, besides this one, that bloomed last year, so that I can only guarantee them as far I have spoken above. If the “history

of the past is the best prophecy of the future," I do not think, from their present appearance, that I shall be sorry that I have named them as growing well, wintering well, and about to bloom well.

It is fair to say that many of the above Roses succeed well on the Briar here, and that, as regards Gloire de Dijon, of which I have seven on a Briar, good doers on all heights of stock, that to non-amateurs I would recommend it on a Briar in preference to Manetti. It is as yet the best supply for the Cloth of Gold, as a large Rose of yellow tendency.

In conclusion, buy Roses suited to either stock. It will take time to find out where is the best place for them in the rosary. A Rose tree on either stock is "arbor curiosus," or, as the publicans would translate it, "a rum shrub." The above advice is not intended to set the whole world against Roses on the Briar, but to help Manetti Rose growers to a more successful treatment of that stock than, I fear, it has received at the hands of a great many purchasers who have treated it as though it were a Briar Rose, from which, in its habits, likes, and dislikes, it so signally differs. I dare say that I shall live to moderate some of my opinions, and, when I do so, I hope that I shall have the boldness and honesty to admit the change.

Rushton, June 4.

W. F. RADCLYFFE.

P.S. Chabrillan has bloomed a most beautiful Rose, fit for exhibition.

EXHIBITION SCHEDULES.

EVERY day's experience illustrates the necessity of schedules of prizes and rules for the regulation of exhibitions being so framed that the most ordinary capacity may understand them; nor is there the slightest reason why rules or regulations should be in the slightest degree infringed upon. The laws laid down are equally binding on all, and as their publication and distribution always takes place long before the show day, very little sympathy need be felt for those who suffer through their own inattention or negligence. By the same line of argument, no infraction of a society's set rules should in aught be tolerated or overlooked; whenever that takes place, some one must suffer, and not unfrequently the society itself.

In the schedule of the Crystal Palace show, held on the 26th of May last, might have been seen—"* * The following rules will be rigidly enforced;" but, it seems to me, that the judges of fruit on that occasion read and interpreted the matter very differently from the plant and flower judges. I give an example: K invites Strawberries, single dish in FIFTIES, and a dish of Strawberries is also prominently notified in large type to consist of 50 fruits. So, in the several classes for plants, the numbers were specially set forth. Let me ask the plant judges if they would have given the first prize for £25 to Mr. Collyer's collection if there had been staged 22 or 24 plants instead of the 20 invited? Would Messrs. Paul have stood in the first rank in Roses had 11 or 12 plants been set up instead of 10, as demanded? The addition of

one or two plants might be an all important feature to an entire collection, giving, as it might do, variety of colour or harmony to the whole, unattainable by strict adherence to the schedule. If, therefore, as I surmise increased numbers would prove fatal to plants and flowers, why not to fruits? If 50 Strawberries be the standard, that exhibitor who dishes up 54 or more breaks the rule, and should go unrewarded, or at least should not displace one who confines himself strictly to the rules. A dish, or *box lid*, or whatever the contrivance may be, *might*, it may be asserted, want some extra fruits to fill it up, or to make the whole look complete; this is, however, identical with the supposed introduction of extra plants to give tone to or soften down exuberance of colour; the one is unjust, the other can be nothing else.

ONE OF THE FIFTEEN CENSORS.

[Let us hope that in future exhibitors of fruit will pay attention to this matter; all the dishes of Strawberries exhibited on the occasion in question contained upwards of 50 fruit, and if they had been disqualified (which in fact they ought to have been) nobody would have been to blame, but the exhibitors themselves.]

LETTERS FROM ROME.

WE have much pleasure in presenting to our readers the following extracts from the letters of a friendly and respected correspondent, relative to the gardens of Rome:—

The gardens of Rome have shared in the time given to sight-seeing. "Nature I love, and next to Nature, Art." The wild flowers of Florence delighted me, the beautiful yellow Tulips and those streaked scarlet and white. The Anemones and other wild flowers, which we cultivate in England, are many of them weeds in Italy; as the rare exotics nursed with so much care in our conservatories I have known as weeds in tropical climates—very troublesome ones, too, for many of the most gorgeous of the *Ipomœas* plagued my gardener on the slopes of the Andes, as the Bindweed does our gardeners at home. That definition of a weed is a good one which designates it as a plant out of place. I once thought we might call all plants weeds, but such as are useful for the sustenance of man; but then we must remember that indirectly all plants are so, and literally true becomes the sublime metaphor, "All flesh is grass."

The Botanic Garden at Rome is not what it should be, considering the advantages of climate, for every variety of Cactus bears the winter, and in time these become gigantic. Many trees familiar to me in tropical climates, and which can hardly be said to grow up to trees in England, even in conservatories, have here the full size and stature of manhood. Those even at Kew are mere babies. Yet, unlike Kew, or bearing the most remote comparison to the Royal gardens, those of Bowood and others of our British nobility, the Roman gardens have characteristics wholly unapproached by imitation in any other country.

The multiplicity of marble statues, vases, sarcophagi, columns, capitals, busts, relieves, some purely white, others of the richest coloured marble, granite, porphyry, and alabaster, can alone be seen in Italy. The uncommon size and countless number of polished tazzas is a constant surprize to me. They nearly all serve as basins for jets of water; and besides, there are fountains so numerous that one or other is always within sight or hearing. The fountains in the villa gardens of the princely families of the Borghese, Pamfilla, Dorin, Barbarina, and many others, are of high pretensions as works of art. But one forgets the groups of marble figures—the winged monsters or smiling cupids—in admiring and feeling the influence, in this sun-gilded climate, of such liberal gushes of pure bright water, which, tossed into the air above the tops of the tallest trees, falls in a diamond shower of glittering drops. * * *

The Stone Pine and the Cypress trees have an individuality which is somehow wanting in our English timber trees. No child in England can tell you, as the Italian children can, the names of every tree within sight. To be sure in Italy trees are neither so thickly planted or in such variety as in England. The Ilex loses its lumpishness when it becomes very aged, and there are trees which are said to be more than a thousand years old, and seeing them you have no scruples as to their great age. In the gardens of the Borghese villa there are groves of the Ilex so dense that the sun does not disperse the gloom; you can hardly read a book in those dark avenues at mid-day; and there are miles of drives of this description. * * *

The Cypress trees are so much larger in bulk—loftier, blacker, and more formal—than I had anticipated, that they rivet my attention daily; for within sight of my balcony I overlook many of those sentinel looking trees, and wonder how I could convey to a correspondent the effect they have upon me. To imagine any Cypress he ever saw in England increased in size, blackened in tone, more dense and more artificial, does not realise what I desire to convey. Imagine our largest Lombardy Poplars having all the branches tightly bound to the stem and steeped in ink, still you have not the Cypress of Rome. The bare lifeless stem or bole, like a scaffold pole, rises to about the height of a mounted horseman, and then clothed as no other tree is clothed, with bristling leaves so unlike leaves, and so compact that there is no salient point, no stray branches, nothing to check your thoughts, up they go to the pointed summit, piercing through other foliage, or forming a line against the deep-blue sky. Those trees tell marvellously massed with other foliage; individually seen, I have the courage to say that they are ugly.

The Stone Pines always delight me; the rich crimson tints of the deeply-incised scaly bark, the graceful bend of the stem, and the mass of foliage spread flat before the heavens, and sending a shadow on earth, is a glorious sight. It occurs to me at this moment, that one reason (if we may presume to speak of reasons for what is all good) why the crooked stems of the Pine-trees are so constructed is, that the sun's warmth and light may be felt; for if straight as our Larches, the stems of the Pine would be nearly always in shadow. The Plane tree, Elm,

and indeed all others, are but a back or foreground for the Cypress, the Ilex, and the Pine. No other variety need be coveted; they suit the climate and the scenery, which is unique.

In the Botanic garden, and many others, I have seen Banksian Roses and other varieties that have clambered up to the very top of the tallest Cypress, and sent from its bronze-like foliage racemes of flowers of such a length that I am afraid to speak of them without exact measurements, are loaded with hundreds of blossoms, and are exceedingly beautiful. The attempts at lawn are ridiculous compared with that feature of our pleasure-grounds. One soon, however, learns to like the Grass, so beautiful are its blossoms, and so marvellous the variety. This Grass is valuable for provender; one constantly sees the process of cutting going on, and the withering Grass gives up its delicious perfume. There are but few stoves in the Botanic Garden, and they are mere winter shelters for the few rare plants they possess. A Brazilian plant, *Bougainvillæa spectabilis* is in full flower, and exceeded everything of the sort I ever saw. Like the Wistaria, the flowers come before the green leaves. The corolla is so delicate that it is quite transparent, and of that tint called *mauve*; and by the dictum of Napoleon's Empress, the only colour favoured by the caprice of fashion. The mandate has been a great success in the annals of fashionable frivolity; throughout all Europe the rage has been *mauve*, and a bride in Florence, spite of all rule and custom in favour of the impressive white, insisted on having a morsel of *mauve*. The Iris is indigenous to Italy. In one garden, more dressed than is usual, oval beds margined with the dark blue Iris, were filled up with a variety of plants, and some entirely with Roses. The Chinese Rose produces larger flowers, and grows to a larger bush, than in England. I know not why it should not be as conspicuous in our own country as here; it is always fresh and beautiful. We cut and cripple it, instead of letting it get old and lofty. * * We certainly use shears and pruning-knives freely, yet all we do in that way is as nothing compared to the Vine-dresser's labour. The Elms to which the stems of the Vines are attached, and from which they stretch on lines totally regardless of uniformity or beauty, are cut to the quick, or mere twigs only left to keep life in the old trees until next year's shoots. The spring this year is very late; on the 1st of May there was scarcely a shoot on the Vines, and not one leaf on the stunted lopped Elms, which look just as large Apple and Pear trees do when cut back for grafting, and are seen under that ugly process for the first year. To see miles of country covered with such maimed trees, with Vines like ropes uniting them, is almost painful, from the monotonous deformity. I saw the country under such aspect, and have seen it when garlanded by the fragrant Vines, in June—no contrast can be more decided; and when the time arrives for the purple clusters of Grapes and the blood-red coloured leaves—or those of citron or crimson hue—I know what the scene will be. *Olive* trees disappointed me by their sombre leaden tint before the gloomy weather had passed over—playing in the beams of this glorious sun the leaves appear to me silvery. The Fig trees are very striking, from their immense size and picturesque roots.

We might have Fig trees quite as grand ; and we might grow abundantly the Judas trees, the delicate purple blossoms of which diversify scenery, throwing colour against the sky ; as does also the Catalpa and Paulownia, of which large trees covered with flowers are in all the gardens round Rome.

Carnations abound ; you see them falling in a thick mass from pots placed on sills of windows up six stories. One plant in the balcony above mine droops down like a curtain, and bears flowers for months in the year, I am told. They are of the true Carnation tint, and fragrant. The pots in which these Carnations grow are small, and my servant tells me that water is never given them ; all they get comes from the clouds. The herbage on the walls of Rome is something wonderful ; the Professor of Botany has enumerated 260 specimens of plants found among the ruins of the Coliseum alone. Most of them belong to Papilionaceæ, nearly all the rest are Cryptogamous. The temple Egeria is covered with *Adiantum C. veneris* ; this beautiful Fern also lines the great wall at Onixto. Sedums of great variety project from the crevices and rents made by time (in the walls), or nestle in the holes of the tufa, rooting themselves between the joints of masonry even to the cornice ; many are golden yellow, and others all shades of pink and crimson ; likewise Houseleek and those succulent plants with their decisive forms and great masses are very characteristic features of the scenery round Rome. Wallflowers of all colours, and many with variegated foliage, enliven the clustering leaves of plants which have not conspicuous flowers. The *Antirrhinums*, so familiar to us in England, hang pendent from walls like drapery, and Ivy hangs loose from walls that are smooth, and from the other side, where it is rooted, a depth of 20 feet. Great bushes of Rosemary establish themselves in places where a large stone has been dislodged, and Jasmines with thick twisted stems ramble over the surface rooted in crevices, and upheld by mere contact with jutting plants. The crumbling ruins are jewelled with lizards, iridescent as they dart with the rapidity of thought in pursuit of insects, and glide over the flat white marble slabs which bear testimony of former luxury, when Nero's Golden Palace had garden walls of polished granite, alabaster, jasper, and porphyry. Many of those walls have been veneered with marble over the interior work.

C. E.

STRAWBERRY FORCING.

THE introduction of several new kinds of Strawberries will have the effect of throwing a number of old kinds out of cultivation, excepting perhaps *Keens' Seedling* and the *British Queen* ; the former will have to be retained for the present, as being yet the best early kind, and for its general productiveness and good qualities.

Taking all its qualities into consideration, the *British Queen* is still

without a rival, combining high flavour, large size, and rich colour, when well grown; but unless cultivated in very first-rate style, it is not very productive, and it is also a tender Strawberry, to keep through the winter; where appearances and flavour are prized, however, the Queen will keep her position for some years yet. Keens' Seedling and British Queen are, however, the only forcing Strawberries of the old kinds that we can recommend.

Of the more recently raised kinds, *Nonpareil* is a good Strawberry for early forcing, fine in colour, and a fair cropper; the fruit too bears carriage well; this will supersede the Black Prince.

Sir Charles Napier.—We remember this and *Nonpareil* being exhibited as seedlings, at Chiswick, a few years back. *Nonpareil* got a prize, but Sir Charles was thought too acid, a fault it has not altogether lost; but, in other respects, it is perhaps the most valuable for the dessert, as a forced fruit, of any Strawberry; it is of the largest size and brightest scarlet colour, and makes a superb display when dished. The fruit is also firm, and keeps tolerably well after being ripe, a good property for country gardeners. This Strawberry is a weakly grower, and rather tender; it wants the highest cultivation to force it in the perfection in which we see Mr. Smith exhibit it, and should not be over potted.

Oscar (Bradley).—This magnificent Strawberry forces remarkably well, stands heat, and sets well; and having strong healthy foliage, resists the attack of red spider much better than the woolly-leaved kinds. This Strawberry, as it becomes more common, will supersede Keens' Seedling. The fruit is large (many specimens this season having weighed $\frac{3}{4}$ oz.), an abundant bearer, of a deep red colour, with red flesh, very sweet when forced, and altogether an invaluable variety either for forcing or open ground.

Empress Eugenie (Knivett), a remarkably fine Strawberry, brought more particularly into notice by obtaining the first prize for forced Strawberries at the Crystal Palace, this spring; fruit of a deep rich red with red flesh, sweet and good flavoured; cockscomb-shaped, and of the very largest size. This Strawberry will become popular as a handsome forcing kind, but we do not know what its properties for hardiness and productiveness are at present.

Sir Harry (Underhill), a good forcer, and of fair average quality; size large, but will be superseded by Oscar and Empress Eugenie; it is, however, a very useful sort.

Prince Arthur (Ingram) is a most useful fruit for early forcing as well as for a general crop; it is, however, not known so well as its merits deserve, being only held, so far as we are aware, by private growers.

Prince of Wales (Ingram) is an earlier production from the Royal Gardens, where it is much grown, both for forcing and out-door cropping but we think there are better Strawberries for both purposes.

So far as our experience leads us to give an opinion, we place Strawberries for forcing as below, in order of ripening:—*Nonpareil*, Keens' Seedling, Oscar, Sir Charles Napier, Empress Eugenie, British Queen;

and we should discard Alice Maude, Victoria, Sir Harry, Black Prince, Prince of Wales.

We have only seen Wizard on the *card*, where it looks grand ; we shall see if it comes up to the mark next year.

R. F.

THE SIX OF SPADES.

CHAPTER VII.

INDEED, I think that there are few institutions more healthful, and few sights more pleasant to the eye and heart, than that of a village flower show. It induces first of all that communion of classes which teaches men, more forcibly than schools or sermons can, to recognize their place and duty ; and does this with a cheerful ease and freedom very sparse (please to observe the fashionable adjective "sparse," a new shilling, I assure you, in the coinage of etymology) in the assemblies of Englishmen. Orchids, delicately reared in heat, are gathered under one tent with the hardy wild flowers of the field ; the luscious Grape from my Lord's vinery rests upon the same table with the Gooseberry, hirsute and corpulent ; and as the question is, not which of these is more beautiful or better than its neighbour, but which is best of its kind, which has been most carefully and wisely cultivated ; so when men meet together, lawmakers and brickmakers, coronets and "billy-cocks," the consideration for each to take home with him is this, not whether he is richer in purse or higher in grade than another, because God has put all men in their places, but whether he is useful and good *in himself*. It concerns every man, and vitally, to reflect, not whether he is a duke or a ditcher, for that is pre-arranged and fixed, but whether his dukery or his dike are in the best available condition.

If it be said that very few will make this inference, or note my obscure analogy, I may lay stress at all events upon the fact that *there* is the communion of classes, pleasantly established, and that from this kindly genial intercourse new sympathies cannot fail to spring. All are in good spirits and good temper to begin with. The Duke congratulates Mr. Oldacres upon that glorious basket of forced fruits, Grapes, Peaches, Nectarines, Apricots, worth a hundred guineas in Covent Garden Market ; and Mrs. Cooper is still more delighted with a long-legged dusty Geranium, which would soon put an end to the Pelargoniums at Slough, by causing them to die with laughter, but which, nevertheless, has achieved to-day the third prize for window plants.

Then comes a friendly fusion of exhibitors. The owner of the soil has hearty words for that occupier who proves to-day that he is not abusing it, and whose neat garden proclaims to the landlord, every time he passes in his carriage, industry, happiness, and the rent gradually accumulating in the recesses of an old stocking. Again, I say, it is a goodly sight. The people of a village ought to be as one family, and to-day they seem to be so ; and when the band of our Volunteer Riflemen—a good band, too, though the performer on the

trombone might be accounted podgy for military purposes—conclude with “God save the Queen,” we feel every one of us that we have met for good, that there are refreshments in life which can cheer and strengthen for many a toilsome day, and that the surest purest happiness is that of men working with the means which are at hand, so ample and so apt when charity seeks them, to make those around them happy. I remember to have heard from an elderly colonel of my acquaintance, that, when a young man, he was in the habit of going frequently for tea and picquet with an invalid aunt, because he thought it his duty. It was an awful bore at first, he said, but he afterwards found in his kinswoman a most genial companion and excellent friend. “I learned more wisdom from that gentle sufferer,” he told me, with an earnest thankfulness, “than could be extracted from a platform-load of Spurgeons; and, though I give you my honour that I always thought, until the day of her death, that she was in straitened circumstances, she left me ten thousand pounds.” “Oh!” exclaims the sceptic, with his unbelieving sneer; and I only wish the colonel could hear him. He would repeat his small observation in a very different key.

But where’s the Curate? We left him communing with Cooper père—he is now with Cooper fils. And there can be no question whatever that Tom junior is at this moment the happiest individual out. He has won the first prize for a posy of wild flowers (we call it a bouquet in our schedule, but I like the sweet old English word far better, and so do the little florists), achieving this victory over thirteen competitors, and surmounting obstacles of a stupendous magnitude; for it is currently reported, not only that Billy Jenkinson’s mother had been seen, on her return from weeding, with large contributions of field flowers for her sweet William, but further that Tim Norris’s big brother “got all his, and tied ’em up for him.” Against these fearful odds, these grand advantages, Tom Cooper has won the day; he has utterly discomfited the mother of Jenkinson, and annihilated the large fraternity of Norris. There he stands, reading the card, which proclaims his conquest, for the ninety-third time, and merrier than Mr. Merry himself, when Thormanby shot forward opposite the stand, and all that he wished was won.

Whence came, I wonder, Tom’s taste for wild flowers, and his cleverness in grouping them so prettily? Ask him, and he will look up with a smile at the Curate, who is even now suggesting to him how he might have made some little improvements; and if you would know furthermore how and when the lesson is learned, ask the Curate, as I have asked, and you will hear his system.

On Sunday evenings, in the summer time, some twenty boys from the village school assemble, when the weather is fine, at his Reverence’s garden gate. They have been good lads in church and school, or they would not be there; and as our ecclesiastical Spade comes out, with some books on wild flowers in his hand, little blue-eyed Joe Birley plucks him by the coat, and whispers proudly into an ear, very promptly inclined to receive the information, “If you please, Sir, I said all that big cholic” (collect for the day intended) “to Miss Rose,

and never made no mistak." Whereupon Joseph is permitted to carry one of the volumes for reference, a dignity esteemed in that boy brigade as highly as the Victoria Cross by a soldier; and off they go for the fields. At the first stile, which leads to the inclosures, there is a halt for choosing sides, the Curate nominating two of the most experienced artists as leaders, and these electing their forces alternately. Then the subordinates receive from their commanding officer their special orders and instructions; some are to remain with him to help in arranging; these are to gather white flowers, those pink, and so on; while others must bring "totter-grass," Fern, or variegated leaf, to complete the outer circle of the collection.

Each company has a librarian, whose office it is to find in his illustrated works the flowers brought in by his brothers, and to communicate their name and history. Their English names, mind you, for our Curate wisely declines to muddle their small brains, and weary their young jaws, with botany. I never saw him angry but once, and then with a bilious old gentleman, who proposed that all wild flowers exhibited at our show should have their latin names and classification. "I'll tell you *my* mind," quoth the Curate, "botany is a grand science for those who have the head and the time for it, but it's about as useful to a ploughman's child as a ball-room fan to an Arctic voyager; and, therefore, so far from rewarding any of my young rustics for latinizing our dear old country flowers, I should be inclined to award for the precocious pedant transportation to Botany Bay. Carry out your idea, and we shall have the labourer's child no more exclaiming, 'O faythur, there's a Dandylyon!' but '*Aspice, O Paterfamilias dilecte, ubi Leon-todon Taraxacum flavescit!*' while his sister, pointing to a Buttercup, shall astonish its mammy by requesting her to 'employ her optical apparatus in the direction digitally indicated, and to admire the *Ranunculus bulbosus*, of the class *Polyandria*, and the order *Polygynia*.'"

"I try to teach them something better about Buttercups," he said to me, as I met him one evening with his boys, and he referred to the subject; and plucking one of the flowers in question, he held it before a charming little fellow, who could scarcely have seen half-a-dozen summers, and asked him if he had learned any verses about it. The answer came promptly, in that soft reverential tone which makes a child's recitation so very touching:—

"It would be wrong on pomp or dress
To spend our thoughts or hours;
Another lesson CHRIST has taught,
Showing the simple flowers.

"There's not a yellow Buttercup,
Returning with the spring,
But it can boast a golden crown
As bright as any king."*

"That will do," said the Curate. "Now, Johnny," and he called another of his pupils, "Tell this gentleman about 'all things bright and beautiful.'" And Johnny began forthwith:—

"All things bright and beautiful,
All creatures great and small,
All things wise and wonderful,
The Lord God made them all.

Each little flower that opens,
 Each little bird that sings,
 He made their glowing colours,
 He made their tiny wings.

The rich man in his castle,
 The poor man at his gate,
 He made them, high or lowly,
 And ordered their estate.*

And Johnny was commanded to cease firing. "They love these verses," our pastor continued, "as they love the flowers; and my hope is, that through life they may connect the one with the other."

"There is a wondrous revelation in these earth-stars, blue and golden, as Longfellow has told us in his grand melodious rhymes, and I trust we are reading it together. I love to imagine that when these boys are men, the labourer, going to his work and from it, may be reminded, as he looks upon these old familiar friends, of the lessons we are learning now; that "the hewers of wood" may stop to recognize, with pleasant memories of the past and brighter hopes of the future, the Anemone, the Primrose, the Violet, the Lily, or the Hyacinth; that pale mechanics, in their Sunday walk, may repeat to their little ones the precepts which are taught by the flowers; and that soldiers and sailors far away may dream of the meadow and the grove, and awake with a deeper affection for their beautiful English birthland, a braver heart to maintain its freedom. Yes, I love to imagine that the recollection of these happy wanderings among the summer flowers may help to revive in weary men the freshness of boyhood's happiness; that some of these lads may hereafter be of that company of whom our greatest sacred poet† has said:—

There are, in this loud stunning tide
 Of human care and crime,
 With whom the melodies abide
 Of th' everlasting chime;
 Who carry music in their heart,
 Through dusky lane and wrangling mart,
 Plying their daily task with busier feet,
 Because their secret souls a holy strain repeat:"

and may know, to quote the words of our greatest Divine since the Reformation,† how to "reconcile Martha's employment with Mary's devotion; in the midst of the works of his trade to retire from time to time within the chapel of his heart; and to converse with God by frequent addresses and returns."

"I want these little men to be what Mr. Kingsley calls "minute philosophers;" to find by the roadside and by the brookside some of "the riches which God has given to the poor;" to feel, as it is wisely said by Alphonse Karr, in that Tour round his Garden, which I would rather have written than 'Adam Bede' itself, '*Le bonheur n'est pas une rose bleue, le bonheur est l'herbe des pelouses, le liseron des champs, le rosier des haies, un mot, un chant, n'importe quoi.*'"

And much more pleasant converse had I with our Curate on that sweet summer's eve, what time the happy boys were racing to and fro

* From "Hymns for Little Children."

† Keble.

‡ Bishop Jeremy Taylor.

with the pretty posies in their hands ; and the gorgeous kingfisher shot down the brooklet, like a meteor, at the sound of their merry voices ; and the swift trout darted to his hole, as they plucked the champions from the bank ; and the landrail craked in the mowing-grass, complaining I infer from his harsh tones, that, being long-toed and formed for the swamps, as a great Naturalist tells us (Darwin on Species, page 186), he should be thus uncomfortably located in the meadows ; and far in the distance " the cuckoo told his name to all the hills," some of them distinctly repeating it, as though Mr. Cuckoo were going upstairs to a party ; and we wandered and wondered, until the dews wept for that gentle day ; and the two floral armies fought the battle of the bouquets, and victory was adjudged ; and victors and vanquished supped, " as only boyhood can," upon the Curate's bread and cheese and beer ; and we all went thankfully home, and " bedward ruminating."

S. R. H.

EXHIBITION OF AMERICAN PLANTS IN THE REGENT'S PARK.

MR. JOHN WATERER'S (of Bagshot) exhibition of this popular class of plants in the grounds of the Royal Botanic Society has this year been very attractive. The shrubs are arranged under canvas, in irregular shaped masses, with Grass borders and gravel walks between, so as to allow the visitors to see them with ease ; and the coup d'œil, when first entering the tent, is very striking and one well worth making a special journey to see, to those who, like ourselves, consider them as the most valuable class of hardy plants.

The favourable nature of the soil for *Americans* at Bagshot and its vicinity has made it the centre of a number of nurseries, where Rhododendrons, Azaleas, &c., are very largely grown, and many valuable seedlings have been originated both by Mr. Waterer and Mr. Standish. The experiments in hybridisation, by which the many fine varieties raised by the latter gentleman were originated, have been made known to our readers by himself.

The present exhibition contains both old and new varieties, as it is requisite the greater part of the plants exhibited should be large enough to make a bold display. Of the most striking dark crimson varieties, John Waterer, Prince Albert, Faust, Genseric, Nereus, General Canrobert, Lefevreanum, Johnsonianum, Sherwoodianum, Bronzino, Blatteum, Raphael, the Grand Arab, Tamerlane, Bassano, Æneas, we marked as those which pleased us the most ; some of them are well-known kinds. Of lighter shades of crimson and scarlet, Raphael, Mrs. John Waterer, Gozzoli, Guercino, Bouquet de Flore, Duke of Norfolk, Erectum, Iago, Sir Charles Napier, Salvator Rosa, Tintoretto, and Sun of Austerlitz. The most striking light and rose-coloured varieties which we noticed were Delicatissimum, Madame van de Weyer, Concessum, Lady Eleanor Cathcart, Geranioides, Congestum roseum, Bylsianum, Etoile de Flandre, Fleur de Marie, Gulnare, Lady Easthope, Limbatum, Zenobia, the Gem, Rubens, Reginum, Duchess of Sutherland, Brough-

toni, Canaletto, Roseum superbum and picturatum, Fanny, Ingrami, Mammoth, Peruzzi, and Tacsoni. Of whites, the most striking were Minnie, Butlerianum, Alarm, Album elegans, Gloriosum, Maculosum, and perspicuum. When we saw them some of the early kinds were past their best, and others scarcely in bloom; we may therefore have omitted naming some worthy of notice. The groups of Rhododendrons were nicely relieved by the best kinds of English and Ghent Azaleas, Kalmias, &c., which greatly assisted the beautiful display the collection presented.

ROYAL BOTANIC SOCIETY.

MAY 30.—With all the past glories of Chiswick in one's mind, Mrs. Lawrence's gigantic plants and Mr. Rucker's collections of Orchids, its aristocratic company, and its royal patronage; with the present glories of the Crystal Palace—the palace of the people, which always has a prohibitive price upon it when there is anything the people specially wish to see; with all the coming glories of Kensington Gore—Mr. Nesfield's terraces, embroidery gardens, and maze—there never has been, there is not, and I question if there ever will be, an exhibition that can vie in beauty with those held under the auspices of the above Society in the Regent's Park. And of all the exhibitions they have ever held, they have never had one to equal, in quantity of colour, or in excellence of growth, the one held on the 30th ult. The absence of all stages, the green sward throwing up the flowers in such fine relief, the nicely gravelled walks, the undulating character of the ground, and the soft light of the canvas tent, always give, on a fine day, an especial charm to these exhibitions; and although many flowers are not in their prime till a month later, yet the immense masses of Azaleas present such a wondrous quantity of bloom, that it is impossible to rival them in this respect. Admitted, by the courtesy of the indefatigable curator, to a private survey, I had a thoroughly good view, and proceed to mark what appeared to me the most attractive features of the exhibition.

With regard to stove and greenhouse plants, I think that nine-tenths of the observations one hears concerning them are, "What wonderfully grown plants!" and the other tenth has reference to their intrinsic beauty. I am free to confess that I am not amongst the discriminating minority. I can and do admire the marvellous perfection of growth, the freshness and freedom of bloom; but it is well known that a plant is not grown for the purpose of showing, unless it will *do* well—that is, bear all sorts of training, and carry a great head. Time was when Pelargoniums used to be grown in immense pots, but the rules of restricting them to smaller pots has brought out the very perfection of growth—small plants, but one sheet of bloom. Why not offer prizes for greenhouse plants in certain sized pots? it might have the same effect.

Where all was fine it is difficult to select, but I do not think there

was anyone who looked at the plants who did not at once select the 16 of Mr. Spode as the first lot in the show; and their admiration was increased when they found that these plants had been brought all the way from the Pottery district, near Rugeley, of horrible notoriety; and yet they looked as fresh as if they had been grown in the grounds. The *Hedaroma tulipiferum*, though not a showy plant, was remarkably fine, as was also the *Dipladenia crassinoda*. Orchids were in large numbers and in great variety, one whole bank being devoted to them. A new competitor has lately entered the lists here, the Rev. Mr. Ellis, whose missionary tours in Madagascar have afforded so rich a treat to many readers; and who has shown that an earnest admiration of nature, and a diligent following of scientific pursuits, no way mars the usefulness, or dims the brightness, of Christian life. Here, too, Mr. Spode again entered the lists; and who did not admire the beautiful specimen of *Phalænopsis amabilis* in his collection? The mystery of his success was solved by a reference to his prize card, on which the name of May, as his gardener, figured—a name famous in the annals of flower shows, he being at one time Mrs. Lawrence's (of Ealing) gardener, where the plants used always to be the admiration, in days gone by, of the frequenters of these exhibitions.

Of Azaleas there was a magnificent display, both from amateurs and nurserymen, showing how great the advance made in the flower of late years. Of the former, Mr. Farmer's, of Cheam, were greatly admired; and amongst the latter, Mr. Ivery's and Mr. Turner's. The most interesting groups were those forming the collections for the six best, open to nurserymen and amateurs, Mr. Turner taking the lead, with probably the best (though not the largest) six Azaleas ever exhibited. I tell you what, Mr. T., we shall have to do with you as they say they did with the bishop elect of Carlisle, put you in a class by yourself; for whatever you choose to attempt, there is no one can come near you. Here you have only been exhibiting Azaleas for two or three years, and you are at the top of the tree, a double first class. And then what can we say about Pelargoniums; here too, Mr. T., as usual was first, a long way ahead of other competitors; but I think, as we taught the Sepoys, he is the other competitors, for they are evidently striving to catch him up. His lot consisted of Mazeppa, Governor-General (an old but lovely-coloured beauty), Imperator, Fairest of the Fair, Festus, Leviathan, and Etna (splendid, both of them), Rose Celestial, Sir Colin Campbell (rather small but dark), Fair Ellen, and Desdemona. In Fancies he had Beauty, Formosum, Acme, Madame Rougiere, Negro, and Modestum. Among private growers, Mr. Foster was first; his plants of Symmetry and Sanspareil were excellent; the latter still bears a right to its name, for it is unequalled in its class. It was early to judge about seedlings, but there were some good kinds shown. Foster's Perdita (dark), and Turner's Patroness (an improved Ariel) had certificates awarded, but there were other promising kinds, amongst them Hoyle's Dove, a clear bright rose; General Garibaldi, very dark; Gem of Roses (Beck), a beautifully bright clean flower; while in Fancies, a beautiful clear rose, Arabella Goddard (Turner), and Champion, carried off prizes. There was, however, a great muddle in the arrangement

of these, and to adjudicate them gave the judges more trouble than all their other duties. Roses were fine; there were Paul's, Lane's, and Francis' magnificent plants; as also Mr. Terry's, gr. to Lady Puller, and Mr. Rowland's; but here again I honestly say I would prefer half a dozen such Roses as I saw at my friend Mr. Brock's, of Doncaster, to these huge bushes with their wilderness of stakes. The Crystal Palace did offer prizes for collections in small pots, and another year they will have competitors. Among the best were Niphotos and Coupe d'Hebe, in Paul's; Souvenir d'un Ami and Coupe d'Hebe, in Lane's; and Gen. Jacqueminot, in Francis's collection.

Tulips were only shown by Mr. Turner, of Slough, and Mr. Norman, of Woolwich, the former had a beautiful boxful, amongst which Sarah Headly shone conspicuous, but all were of excellent strain. Pansies were also in good condition, the best being from Messrs. Downie and Laird, of Edinburgh, but all the blossoms were rather undersized.

There was but little novelty, as far as new plants were concerned; a curious *Cypripedium*, called *caudatum roseum*, with tails a foot in length, and the variegated Ferns, *Pteris tristis* and *Pteris crispa* were greatly admired; but probably the plant which excited most interest was a boxful of the branches of *Bougainvillæa spectabilis* (not new). "What is it?" "Did you ever see such a lovely colour?" and such-like exclamations, were heard on every side. One lady, seeing the notice (without bottom heat) immediately jumped at the conclusion of sacrificing it to the bedding-out giant, and said, "What a lovely contrast it would make!" But, alas! for her; she was immediately told, bottom heat or not, it was a stove plant, and those beautiful mauve-coloured bracts could only be had by a good strong heat, too. It is a very beautiful thing, and will doubtless be a favourite for cutting for bouquets, if for nothing else.

Amongst miscellaneous plants, were two bedding horseshoe Geraniums from Mr. Hally, of Blackheath, "Blackheath Beauty," free flowering and densely marked foliage, and "Aurora," peculiar reddish salmon of the same class; and, from Mr. Turner, a beautiful box of the new seedling Strawberry Oscar, which thus proves itself to be equally good for forcing as for out-of-doors cultivation; and two pretty boxfuls of Ferns from Messrs. Paul, of Cheshunt.

June 20.—Another magnificent show, the Geraniums being in their full vigour, as well as Roses and Heaths; but there was not that quantity of bloom that there is in May, owing to the absence of the large masses of Azaleas. The day was unfortunately dark and showery, and consequently the purple and light tints, which are always subdued under canvas, were not nearly so effective as usual. Adhering to the plan of not giving long catalogues of the prize-taking flowers, I shall pick out those which struck me, after a very leisurely and minute survey, as most deserving of attention, referring our readers to the *Gardeners' Chronicle* for the more detailed lists. In stove and greenhouse plants, there were some remarkably fine specimens; Mr. Collyer, of Dartford, occupying the first place, and Mr. Spode second. The *Leschenaultia*

biloba major, in the collection of the former gentleman, was a triumph of horticultural skill. It is comparatively easy to grow a large plant of it and get a few heads of bloom, but this was one sheet of lovely blue. In Mr. Green's collection (first for 10 stove and greenhouse plants) was a very fine specimen of the truly beautiful *Hoya bella*, and a fine *Pleroma elegans* came in Lord Lovelace's collection. Orchids were very beautiful, the two best plants in the exhibition being a *Phalaenopsis amabilis* from Mr. Day, of Tottenham, and a *Dendrobium Devonianum* from Mr. Ellis. The former was one mass of beauty; the racemes of pure white flowers hanging round on all sides, and the foliage being in corresponding vigour, while the *Dendrobium* (grown in a basket) was equally beautiful, and full of its richly varied and striking blooms. There was also a fine plant of *Cattleya Mossiæ superba* from Mr. Butler, of Woolwich; and, as usual, a considerable number of *Vandas*, *Cypripediums*, *Oncidiums*, &c., from the various exhibitors. We have little to say with regard to novelties. For the admirers and growers of fine-foliaged plants, there was the beautiful *Campylobotris regalis*, somewhat resembling the magnificent *Cyanophyllum*, but smaller in growth and habit; while two New Zealand tree Ferns from Mr. Standish, of Bagshot, promise to be great acquisitions—unlike some of the class, they commence their foliage from the very base of the stalk, not as some do, running on two feet before they are clothed. Amongst miscellaneous plants were several specimens of *Lilium giganteum* from Messrs. Jackson—a rubbishy thing; and a very pretty little shrub, with fringed bell-shaped flowers of pure white (*Elæocarpus dentatus*).

The flowers which, however, drew most attention to themselves were unquestionably the *Pelargoniums*, which were shown in great variety and beauty; the first prize amongst amateurs being taken by Mr. Foster, of Clewer Manor; and amongst nurserymen, by Mr. C. Turner, of Slough. The plant of Carlos in Mr. F.'s collection was perhaps the best grown *Pelargonium* ever exhibited; it was one sheet of bloom, between three and four feet across, and when one looked at the size of the pot, it seemed hardly possible that such a head could be produced from it; his examples, too, of *Fairest of the Fair* (a beautiful light variety) and *Ellen* were very good. Mr. Turner's collection (which was in the usual condition for which his plants are so famous) consisted of *Monarch*, *Sanspareil*, *Desdemona*, *Prince of Wales*, *Prince of Prussia*, *Fairest of the Fair*, *Carlos*, *Governor-General*, *Matilda*, and *Viola*. Mr. Dobson's collection was also very fine, the "longe intervallo" becoming gradually less; the plants in his, different from Mr. Turner's, were *Admirable*, *Symmetry*, *King of Scarlets*, *Blink Bonny*, and *Fair Ellen*. In *fancies*, Mr. Turner amongst nurserymen, and Mr. Bailey, in amateurs, exhibited two very fine collections; had they been in competition with one another, it would have been a very difficult task to have decided which was superior. The plants of *Acme* and *Celestial* in each were perfect pictures, while the others were nearly as well grown.

There was quite a bank of seedlings; the well-known raisers, Hoyle, Foster, Beck, Dobson, and Turner contributing; and Messrs. Rollisson evidently showing that they, too, mean to do something. But here for

a word, which may seem impertinent, though I think growers will agree with me—Why award prizes to yearlings? It is very easy to get up a nice-looking plant, with a truss or two in bloom; but put them alongside of old varieties and they would not seem one bit better. Besides, one learns nothing of the habit of the plant by it; *e. g.*, there were two, Lord Palmerston and King of the Belgians, both very beautiful things, but the former had only one truss, and the latter one pip out; very fine, doubtless (in the style of Napoleon III.), but no one could tell how they would grow. Then there is another thing which is to be considered, what will please the public taste, as well as be correct in properties. Now of all that bank, I venture to say nine out of ten would point to Beck's Gem of Roses as being the best flower. It is a beautiful clear smooth rose, but deficient perhaps in some properties; by no means equal to Norma, of Mr. Hoyle, but generally a more taking flower. The finest flowers were, Rosa Bonheur (Hoyle), a large rich crimson with a deep white throat; and Beauty of Reading, by the same raiser, veined crimson; Transcendent (Beck), a very dark flower, quite in a new style; Princess Helena (Rollisson), white, spotted on all the petals; Prince Consort, very dark; Mrs. Benyon (Hoyle); Perdita (Foster), rather too much cupped, *the* fault of Mr. Foster's flowers: Peeress (Beck), very dark. We believe that another time some other arrangement will be made for the easier judging of these generally attractive things.

Roses in pots were very grand, Mr. Francis this time being deservedly placed first, with Niphetos, Coupe d'Hebe, Souvenir d'un Ami, Madame Willermoz, Auberon, Vicomtesse de Cazes, Baronne Prevost, and a splendidly bloomed plant of General Jacqueminot. In cut Roses, *Mr. Turner* was first! and moreover his blooms were all cut in the open air, while in the other collections were evidently blooms from pots. I warned Rose growers to have a sharp look-out, for he seemed bent on doing something; and see how soon he has made the prophecy true. And here I would say a word about Mr. Paul's new Tea, President; it was shown in much better condition than formerly, and is a very large, handsome variety; though I still think it lacks what we very much want in that class, novelty.

No greater proof of the backwardness of the season could be given than the fact, that last year Carnations and Picotees were exhibited on June 30, while this year there was not even a Pink to be seen. Ranunculus, too, though pretty, were very small, and were only exhibited by Mr. Tyso.

Of Calceolarias there were several collections of six, herbaceous and shrubby mixed together; one lot of truly grand plants was sent by Mr. Burley, nurseryman, of Lumpsfield, Surrey, but were not entered for competition. General Havelock was a perfect beauty, filled with blooms of a fiery red colour. I hope these plants will, in July, enter the lists and take their proper place.

Fruit (*i. e.* forced Fruit) was plentiful. Some excellent Queen Pines of large weight and handsome proportions were shown by Mr. Young, gardener to C. Bailey, Esq.; and Mr. Barnes, gardener to Lady Rolle. Grapes were also numerous; some splendid specimens of the Grizzly

Frontignan came from Lord Beauchamp, and there were numerous entries of the fine old Black Hamburg. Melons were abundant, as were also Peaches and Nectarines. The finest dish of British Queen I ever saw was exhibited by Mr. Smith, of Twickenham; there were some pairs of Cucumbers, which were exceedingly large and ugly—perhaps like the Scotch terrier—this is no disqualification, and they may eat well. There was nothing remarkably new in this department; some Strawberries were shown called Empress, and a smaller kind also, but of their merits I can say nothing. The day was showery, and the attendance therefore not so numerous as on some occasions, but better than might have been expected; and all seemed gratified at the show and the manner in which the arrangements were carried out under the able superintendence of Mr. Marnock, whose services are close verging on to a quarter of a century; that he may long hold his present position is the wish of every true lover of the gentle craft of gardening.

Deal, June 26.

D.

NOTES ON THE MONTH.

SINCE we penned our last remarks rain has fallen incessantly, accompanied at times by storms, and great electrical disturbance, which have caused immense damage throughout the country and surrounding coasts. At the time we last wrote our observations the temperature was slightly above the average, but since the commencement of June it has been below, and on the mornings of the 13th, 14th, and 15th, white frosts were distinctly perceptible, added to which the gloomy cheerless days we have experienced have reduced the temperature of the season several degrees below the average, which has given a great check to all kinds of vegetation. The Wheat plant has suffered greatly, and unless the most favourable change in the weather that we can anticipate takes place soon, the crop will be very deficient. The preparation of land for Swedes and Turnips has also been seriously retarded. Some hundreds of acres round this neighbourhood intended for Swedes are now in a deplorable state, and will never be cleaned in time to get in the crop. The Clover and early hay crops have also suffered much loss through the rain, and altogether agricultural prospects are anything but cheering. Nor are the prospects for gardens a wit brighter. Bedding plants have either stuck fast, or died away, owing to the ceaseless rain and cold combined; so that many things have had to be replanted, and the display of bloom will be late. In the kitchen garden we have seen some kinds of Peas and Scarlet Runner and French Beans which have rotted away through the damp cold season, a circumstance we never recollect before. Cauliflowers are backward, and the Potato crop (excepting a few early ones, nearly ripe) shows unmistakably the want of summer weather, and are, besides in a filthy state in many places, for want of the necessary cleanings; for certainly, however slowly other things have grown, weeds have not done so; on the contrary, they seem to revel with more than usual luxuriance this weeping season. But the greatest garden grievance is the destruc-

tion which has made such havoc with Peach walls, which in many places are denuded of their occupants by disease. So fatal and universal has this been, that it appears to partake of the nature of an epidemic. Be this as it may, the cure or preventive seems quite beyond our control, and there appears to us only one remedy, and that one to interpose a glass case between the walls and the external atmosphere, for doubtless the disease has originated in the unfavourable conditions of climate for Peach growing the past two seasons. Glass coverings and orchard houses must now be adopted as an imperative necessity where Peaches are looked for in September. "It is an ill wind that blows no one luck," says the old proverb, and thus those who planted extensively this spring, when the weather was unfavourable, have now the satisfaction of seeing their plants growing most freely. The dull weather and extreme moisture of May and June have been all in their favour.

G. F.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—Attend to last month's directions, and get Azaleas which have done blooming cleared of decaying blooms and seed pods; and weakly back shoots, which can be spared, cut out, the shoots nicely distributed, and the plants placed where they can be afforded a moist rather warm atmosphere. Keep them near to the glass, and allow each plant ample room, for crowding can only result in weak growth. Shade carefully from bright sunshine, and use the syringe freely, and see that none of the plants are infested with black thrips. Any specimens supposed to require more pot room should be shifted at once, so as to allow of their getting good hold of the fresh soil before winter. Plants which have made their growth, and set their flower buds, should be removed to a cool house, or shady situation out of doors, but do not expose them to bright sunshine. Plants of Camellias, which are making their growth, must be guarded from bright sunshine, kept rather close, and afforded a moist atmosphere, syringing them freely overhead at least every evening; and plants requiring more pot room should be shifted as soon as convenient, using about equal parts good fibry peat and light fibry loam, with a free admixture of sharp sand. Secure perfect drainage and press the fresh soil firmly about the ball. *Conservatory.*—Attend to keeping the permanent plants well watered at the root, and also see that they are free from red spider and aphid. All plants making their growth should be syringed overhead freely every evening wherever this can be done; and where this cannot be done without injuring adjoining plants in bloom, extra care should be used to maintain a moist atmosphere, sprinkling or watering every available surface sufficiently often to prevent their ever being dry during bright hot weather. Plants removed to here from the stove should be placed in the closest part of the house, and avoid exposing them to through currents of drying air. With a little care, *Ixoras*, *Allamandas*, *Clerodendrons*, *Dipladenias*, and almost all stove plants, will do very well in this house at this season; and we have had *Ixora coccinea* stand longer in full beauty in the

conservatory than we ever had it elsewhere, and without the plant being in the least injured. Maintain perfect cleanliness here, regulating the plants in bloom to the best possible advantage, and spare no effort to keep everything clear of aphis and red spider. Also use every possible foresight, and make the most of whatever means may be at command, for providing a supply of plants for blooming here during the autumn and early winter. *Cold Frames*.—Such things as *Boronias* and *Gompholobiums*, &c., making their growth here will require to be kept rather close, and be very carefully attended to in every respect, for the season so far has been most unfavourable for getting such things to grow freely; and it must not be forgotten that these plants seldom bloom profusely on wood made late in the autumn, and also that soft ill-matured wood is particularly liable to the attacks of mildew, &c., in winter, therefore keep the frames as close as can be safely done, and use every means to secure free strong growth as soon as possible. Examine *Leschenaultias* and other things subject to the attacks of aphis, and fumigate gently directly these are observed to be making their appearance upon any of the plants; also *Pimeleas*, *Chorozemas*, *Gompholobiums*, *Bossiaëas*, &c., for red spider, and any plant found to be affected should be laid on its side and the foliage thoroughly washed either with the syringe or engine, according to the size of the specimen and the nature of the foliage. Attend to repotting any specimens which may require this attention, and see that all are nicely trained and made to grow in the desired form. Also turn the plants frequently partly round, so as to give all their parts an equal share of light, &c., which will be found to prove a great help towards securing handsomely formed specimens. *Flower Garden*.—There will be little required here at present beyond attention to the ordinary routine work necessary to secure neatness. Keep *Verbenas*, &c., nicely pegged until the ground is covered; and where the practice of edging the beds or planting them with several distinct colours is adopted, give attention to keeping the plants regulated, so that each band of colour may occupy the space intended, and the whole will then be seen to advantage if the plan of planting was correct; but where a line intended to form a distinct edging to a bed is allowed to extend into the beds, and the plants forming the bed to mix their flowers among those of the edging, the only feeling which can be experienced on looking at such a bed will be that it is a disagreeable muddle. Keep *Hollyhocks* and *Dahlias* secured to their stakes as they advance in growth, and if the weather should prove dry and hot do not allow them to suffer through dryness at the root. *Greenhouse*.—Drenching rains have been so frequent since our last, that those who disregarded our instructions and kept their plants in the house will have practised the wiser plan. We have turned nothing out on which we placed much value, and those we do are either blown to pieces, or greatly injured by wind, or half drowned by rain; and until we see a decided change in the weather, we shall not place anything out of doors which we can possibly keep under glass.

Hardy Fruit.—Attend to previous directions in regard to the thinning and stopping the young shoots of all trained fruit trees, and now make

the final thinning of Peaches, Nectarines, and Apricots, of course leaving the heaviest crop on the vigorous trees and strongest branches. As a general rule, no two fruit should be left together. Plums of the large kinds, as well as the finer sorts of Pears, should also be thinned if the crop is too heavy. Young Peach and Apricot trees, when making over vigorous leaders, should have the points of the shoots shortened, to encourage them to make other shoots less vigorous, and of a fruitful character; this will obviate the necessity of shortening them back at the winter pruning. Strawberries will require frequent waterings during hot and dry weather should it happen to set in at the time the fruit is ripening. Place netting over the plants, to protect the fruit from birds, which will also be very beneficial in partially shading the fruit from the scorching sun. Layer the runners intended for pot culture, as well as those required for making new plantations. All spare runners may be cut away, and keep the plants free from weeds. Thin and stop the shoots of Figs as soon as they have made a growth of about six inches, and remove all useless growth from Vines. Keep the fruit close to the wall, and shaded by the foliage from the sun.

Peaches and Nectarines.—As soon as the crop is cleared in the early house, go over the trees and remove all useless shoots, such as is not required for fruiting next year. Give the trees a good syringing, and water the borders if necessary; and if the trees are weakened through over cropping or from other causes, a good soaking of manure water would be very beneficial—on the other hand, if the trees are making strong growth withhold water altogether. Give a good supply of air; and if the weather is fine at the end of the month, the sashes may be removed altogether, to assist in ripening the wood. Let the fruit in the succession house, if approaching maturity, be fully exposed to the sun by turning aside the leaves and keeping the shoots thinned and tied in; a dry warm atmosphere, with plenty of air, is necessary at this stage of their growth. *Pines.*—See that the heat in the tan beds

is not too strong, especially where the succession plants are growing, as the plants will now be rooting freely, and burning the tips of their roots at this season will cause a serious injury of which they will not soon recover. Shift succession plants as soon as their pots are filled with roots, and in so doing the old ball should not be reduced. All plants intended for fruiting early next season ought now to be shifted into their fruiting pots or planted out on ridges; also pot suckers taken from old stools for succession. Water freely, and keep a moist heat where the fruit is swelling, and plenty of air to those starting into fruit. *Cucumbers.*—

It is not unlikely that owing to the wet and cold that prevailed through the greater part of last month that *ridge Cucumbers* will fail—judging from what we have seen, the chances of a crop are far from favourable; they are now much diseased and making but little progress. Therefore, it is necessary that every attention should be given to those under glass; the linings should be turned and renewed, so that the heat does not decline, and those plants that have been in bearing since the spring should be thinned, and a little leaf-mould scattered over the old shoots, which will encourage them to root, and with attention to the linings they will produce a plentiful supply by-and-bye. *Kitchen*

Garden.—As soon as any ground is cleared of early Peas, Potatoes, &c., the winter crops of Greens, Brussels Sprouts, Broccoli, and Savoy, should be planted as speedily as possible. Also plant out Cauliflowers, and make another sowing of Walcheren and some early sort, for the latest crop; these must not be sown later than the 10th of the month. Sow succession of Peas up to the 20th; any kinds that are suitable for early work are good for the latest crop. Sow French Beans early in the month for the last crop; the Black Negro and Mohawk are among the best for this sowing. *Vinery.*—Ripe Grapes require to be kept as cool as possible by admitting abundance of air throughout the day. As soon as the early crop is cleared, encourage the lateral shoots to grow; and keep the foliage in a healthy state as long as possible by frequent syringings, to strengthen the Vines for another season. In the late houses, where the fruit is swelling, a moist growing heat is requisite, and a little fire-heat will greatly assist them in chilly weather. Tie in the shoots, and thin the berries as they may require it, and use the syringe freely to all Vines except those where the fruit is colouring, to keep the red spider in check.

FLORISTS' FLOWERS.

Auriculas.—It will be well now to prepare the compost for repotting; not that I think it desirable to commence that operation until early in August, but all ought to be ready and well turned over. It will hardly be necessary for me to do more than to refer to former articles as to the ingredients of which this should be composed—let it be well turned over, mixed together, and kept from wet. *Carnations and Picotees.*—As soon as the buds swell, and are getting towards their full size, they should be tied, to prevent the bursting of the pod—nothing better than bast mat. Syringe freely and keep clean. Watch after green-fly; if you can, fumigate—if not, brush them off with a camel's-hair brush. *Pansies.*—Propagate as fast as you can, for now is the time when they slip through one's fingers. The pots should be kept in a shady border. On the slightest appearance of mildew, dust well with sulphur; and it would perhaps be better, if the weather promises to be dry, to take them out of the pots and plunge them in a shady border, cutting off all the grosser shoots. *Dahlias.*—Their treatment must depend very much on the state of the weather—if hot, they should be well syringed and watered. Tie them out as they grow. *Pelargoniums.*—Towards the close of the month, these will have lost their beauty; they will then require but little water, and ought to be exposed to the sun and air, in order that the plants may be well ripened. If there be any green-fly, they should be fumigated before they are cut down, and the cuttings should be quite clean before they are put in; they strike almost anywhere, but an old hot hotbed is best; they should not be taken until the wood is well ripened. *Pinks* are very late this year, but, as soon as the Grass is fit, pipings should be made. The process is well known, and is best done under small hand or bell-glasses, and, if possible, on top of a spent hotbed. I have none in bloom yet, though this time last year they were in perfection.

(Clematis).—As soon as any ground is cleared of early Peas, Potatoes, &c., the winter crops of Cereals, Grasses, Sprouts, Broccoli, and Savoy, should be planted as early as possible. Also plant out Carnations, and make a border sowing of Wallflowers and some early sort, for the latest crop of these must not be sown later than the 10th of the month. For a second crop of Peas up to the 20th; any kinds that are suitable for the second crop are good for the latest crop. Now French Beans early in the month for the first crop; the Black Negro and M. Hawk are among the best for this sowing. Vines.—High Vines require to be kept as cool as possible by admitting abundance of air throughout the day. As soon as the early crop is cleared, encourage the lateral shoots to grow, and keep the foliage in a healthy state as long as possible by frequent syringing to strengthen the Vines for another season. In the late autumn, when the fruit is swelling, a moist growing heat is necessary, and a little more heat will greatly assist them in chilly weather. Put in the shoots and trim the berries as they may require it; and use the same treatment to all Vines except those where the fruit is colouring, to keep the berries in shape.

FLOWERS: FLOWERS.

Antirrhyns.—It will be well now to prepare the compost for retopping; not later than in October to commence that operation until early in August, but an effort to be ready and well turned over. It will hardly be necessary for me to be more than to refer to former articles as to the preparation of the compost, but it is well to be turned—let it be well turned over, mixed with a little soil, and kept in a well. Carnations and Violets.—As soon as the berries are well, and are getting towards their full size, they should be tied, to prevent the bursting of the pod—nothing better than a bit of string, or a piece of paper, and keep clean. Watch after green-fly; if you can, fumigate with a camel-hair brush. Violets.—Fumigate as far as you can, for now is the time when they slip through one's fingers. The pots should be kept in a shady border. On the highest appearance of mildew, dust well with sulphur; and it would be better, if the weather promises to be dry, to take them out of the pots and plunge them in a shady border, cutting off all the grosser leaves. Daisies.—Their treatment must depend very much on the state of the weather—if hot, they should be well syringed and watered. The stems out as they grow. Pyracantha.—Towards the close of the month, these will have lost their beauty; they will then require but little water, and ought to be exposed to the sun and air, in order that the plants may be well ripened. If there be any green-fly, they should be syringed before they are cut down, and the cuttings should be burnt, as before they are put in; they strike almost anywhere, but are not killed as heat; they should not be taken until the wood is well ripened. Violets are very late this year, but as soon as the grass is up, things should be made. The process is well known, and is best done under small hand or bell-glasses, and, if possible, on top of a spent compost. I have none in bloom yet, though this time last year they were in perfection.



H.P.
Comtesse Cecile de Chabrilland.
Plate 167.

ROSE "COMTESSE CECILE DE CHABRILLANT," H.P.

(PLATE 167.)

THIS very beautiful new Rose, so much admired at the National and other exhibitions, and so highly commended by the floricultural press, well deserves the successful care which has been bestowed upon it by our artist, and a place in every rosarium. Our readers will find some further observations upon the flower in an article entitled "Home Again," which appears in our present number.

THE BRIAR AND ROSES ON THE BRIAR.

1. *Preliminary Observations.*—I have received thanks for my Manetti paper, and I am induced to write an article on the above subjects, that a fair balance may be held between the two stocks, and that I may not be quoted as an enemy to Briar Roses. I have never been an enemy to them, properly planted, in a suitable place, in a suitable soil; or to them, when highly mulched and well watered in soils, otherwise too hot for them, in very torrid summers. This summer has been peculiarly favourable to Briar Roses here; I never knew them do so well. Mildew and black blight have, however, touched severely many Roses on either stock. The Manetti Roses have now finished their first series, having been cut for the 30th of June; and some of them have the new buds of the second series formed. This will account for my not being able to "put in an appearance" at the National exhibition. Few of the Briar Roses here, though they have good centres, are large enough to satisfy the requirements of the judges, who look, I think, too much to size and too little to other qualifications. Some of the remarks made in my Manetti article will apply to Briar Roses, and need not be repeated.

2. *The Foundation.*—As the foundation of a building is the most important part of it, so the Briar is the most important part of Briar Roses. If this be bad, the Rose united to it cannot prosper. Hence the necessity of looking well to the roots, the rind, the spine, and the head of the stock. If these are all good, when they come from the nurseryman, you must not complain, if they do ill afterwards. The roots are easily examined, and should be pumped upon on their arrival, and should never be suffered to become dry. The spine in the centre should be firm, and the rind should be free from dark stains. Light stains are not so material as dark ones. Caries and ultimately death commences with black stains in the rind. Examine the head of the stock; it should be healed over the margin at least. If, however, it should not be healed, or if there is an aperture between the skin and spine, cut it afresh, and wash it with Robinson's liquid glue, or with

gutta percha dissolved in chloroform. I have been using these two on Briar stocks (204), now budded, and they heal and grow fast. Cut always with a sharp knife. If a surgeon cuts off an arm with a blunt knife, he will hurt his patient; and, if he neither cauterises the cicatrix, nor bandages, nor ties the bleeding vessels, death will ensue. The Briar may not do so, but it will suffer detriment, which will manifest itself hereafter. The rind has an infinite number of vessels, invisible to the naked eye, from which the sap will exude. Probably Friar's balsam might not be bad for the purpose. There is a great analogy running through the field of nature. Trees, vegetables, animals, and men, are but different links in creation; and, as far as the analogy lasts, the treatment for one will suit the other. Let me, then, repeat once more, that the healing of the vessels at the top of the Briar is most important, especially when a dwarf-habited Rose is budded thereon, and that the cause of failure in Briar Roses is as often at the head as in the roots.

3. *The Cut at the Head of the Briar.*—This should be as sloping as possible, that wet may not rest on the Briar-head. It should be cut close up to the budded branch, that frozen dews, when they thaw, may find no lodgment at the base of the budded Rose. I lost several Roses last winter from this cause, and from their wood not being ripe, and from their rind not being hardened.

4. *The number of Briar branches to be budded.*—It is safest to bud three, but one branch with the best shoots should only be left. Where two parallels are budded, both may be left. Where distance intervenes between them, there is always a fighting for the mastery, and neither will be good.

5. *The branch end of a budded Briar.*—This should be cut close to the budded Rose, when it starts, and it should be healed as above.

6. *Staking and Binding.*—When you plant, stake and tie the Rose to the stake loosely for some days, till the ground has pitched, or you will hang up the Rose. After the ground has pitched, tie the plant to the stake firmly, passing the bast, like a figure of 8, between the plant and the stake. It will keep the stake from galling the tree, and from preventing circulation in the rind.

7. *The height of the Stock.*—Being so exposed to S.W., W., and N.W. winds, I prefer standards about 2 feet or $2\frac{1}{2}$ feet out of the ground. Moreover, they are not so expensive to stake, can be viewed more easily, and be shaded with less trouble, for exhibition. If the quality of the Briar is good, the height is immaterial; if bad, or only moderate, of course the less you have of it the better. If the stock is good, I find delicate Roses, such as Masson and Magnan, do better on 4 feet standards, than on dwarf. I have two each on first class standards, and they are doing admirably. Delicate Roses should not be nearer the ground than 2 feet. If they are in valleys, where damp prevails, they will be healthier on 4 feet standards. On low stocks I have lost many of the above Roses. Look not so much to the height of standards, as to the quality. The *qualitas rei* is of more consequence than the *qualitas vocis*, to use a term in logic.

8. *General and Cultural Directions.*—You cannot do better than

buy Mr. Rivers' charming book, and Mr. Cranston's truthful little *brochure*. Would I had bought them before I bought my experience!

9. *Selection and digging up Briars to bud on.*—Choose those that are young and yet firm in their spine or pith. Choose them of a good hard green in the rind; they are best when they have lost their prickles. In autumn or winter pay your servant something extra to take them up carefully with their small web roots on; and if he does his work well, praise him, and give him a good supper and some beer. The nearest way to the human heart (in England at least!) is down the throat! No man will scratch his face, tear his clothes, and dig up carefully Briars for a penny per stock. My noble ones, thus procured, have just been budded by Mr. Gill, nurseryman, of Blandford, and tied by his lad, and I hope some day to be able to say, that Briar Roses do as well here as those on Manetti have just done.

10. *Position in the Garden.*—A Rose that will do nothing in one situation, will do well in another, even in the same garden. Bourbons of a dark colour, here, usually do best near a north wall, where they get heat without being burned by the sun. In the sun they are apt to crack and fuse their colours. Reveil and Aurore de Guide, for instance, have done so this year. Leprestre, a noble Rose, blooms freely exposed to sun. G. Peabody, a fine purple crimson, has also opened freely. It is useless planting in windy situations slow growers or delicate Roses. Triomphe de Rennes, Noisette, will do well with protection in the open, but it will do twice as well against a wall. Paul Joseph, Proserpine, and Mons. Ravel, all bloom best under a north wall. And hardy, vigorous Acidalie will bring her blooms to greater perfection on a south wall. The Rev. Mr. Helyar told me, when here, that the south wall is the proper place for (H. P.) Napoleon. Eliza Sauvage, here, is blooming beautifully in the crux of a north-east wall in the yard, with an abutment to the west, but open to the south. These will serve for illustrations of right Roses in right places. A right Rose on a wrong stock, and in a wrong place, has produced much disappointment in many Roseries.

11. *A Briar fallacy.*—I have heard people say that because a Briar grows finely in a poor hedge, where the soil is thin, and the substratum is dense chalk, that poverty and chalk are good for Roses on the Briar. I admit that where lands burn, chalk (where clay cannot be got) may be beneficial as a retainer of surface moisture, in the same way as popple stones (cobbles), grass, or mulching; but, it is not good as an under soil. At the back of my house, half way up a steep eastern chalk hill, the fields and hedges are mine, and from them I have dug up the finest Briars, some 10 feet high, and fit, at that height, to bud "Fulgens," as a weeper; but, on examining them, I found that, though they had some small web roots of their own, their main dependence was on a very large deep-rooted stool, to which they were attached by a strong cord. The strongest land produces, on the whole, the finest Briars, and suits "generally" Roses on the Briar. Attached to such like stools I dug up from swamps last winter fine Briars. There is one other reason why Briars grow finely even in poor hedgerows, viz., their roots are protected by fallen leaves, which suggests mulching. I have found

here, that Briar Roses in lawn holes do better with a six-inch radius free from grass than with a larger one. As far as my eight years' experience goes, I have found mulching good for Roses, and also conducive to success on Briars just budded, which should also be as well staked as established Rose trees. If Briars were kept well watered before budding and after, I firmly believe that they would "take" quicker, and more certainly in hot weather than cold, because the circulation is quicker.

12. *A few Roses that will stand gales of wind; and which, though beaten to shreds, will, upon being cut back, break again, and bloom.*—Triomphe de la Duchere, Jules Margottin, Cambaceres, Triomphe de l'Exposition, William Griffith, Lafitte, Baronne Prevost (the "Colonel" is best far, but not for a windy corner, much less for a tempest), La Reine, William Jesse, Pius the Ninth, Bouquet de Flore, Acidalie, Aimée Vibert, Bachmeteff, Caroline de Sansal, Triomphe de Paris, Angleterre, Maximè, Paxton, M. Trudeauux, Mont Carmel, Louis Odier, Duchess of Sutherland, and Duchatel. These stand gales best here; they have good constitutions. I know that better Roses than some of them might be named, but observe the place for which I name them. I for one cannot afford to part with Baronne Prevost, La Reine, Pius the Ninth, and William Jesse. Let what will happen, I get something out of them every year. Four-fifths of the trash that comes out every year may well give way to them, and to their fine and lasting constitution. These four were among my first forty, and they are "younger" and better than when I had them eight years ago. Alas! how many deaths of other Roses have I witnessed.

13. *Roses that do well on a Briar here, but which require shelter from wind; they should be in every garden.*—Raglan, the Géant, Alphonse Karr, Lamartine, Beaux Arts, Prince Noir, Patrizzi (both lovely dark Roses), M. Phelip, Toujours Fleuri, Avranches, Lord Palmerston (both hold colour under sun better than any others that I have; the petals of the last are very thick, the colour is distinct), M. Rivers, M. Portemer, Eveque de Nimes (both lovely), M. Masson, Louise Magnan, M. Massot, Col. de Rougemont (the noblest and most elegant of all large Roses, but requires an extra good Briar); M. Heraud, Alice Leroy, Sir J. Franklin, Prince Leon, and Madame Vidot. These are all nice Roses for protected situations, and some of them are the finest in the world for form and quality. There is nothing for quality and form superior to Prince Leon. The following Manetti Roses I can now confidently recommend: General Jacqueminot, Duchesse de Orleans, Louise Peyronny (Peyronny in Verdier's catalogue), Comte de Nanteuil, Vidot, Prince Imperial, A. Fontaine, and Prince Leon. These last seven do well in dry ground, but near the river they do not do well. The following Roses new, or new to me, I can most highly recommend. The two first are noble show Roses, and are in their second year, or first year of bloom, viz., Anna Diesbach, Madame Vignerot (both nearly five inches in diameter, and of good quality; the former I think will show an eye), Louise d'Autriche, Reine des Danemark (both splendid), Armide, Comte de Beaufort, Lord Elgin, Francis the First, Dr. Bretonneau, and Altesse Imperial. The three

last are pot Roses planted this spring, and I can only speak of them as nice Roses. The last is very dark and rich; the two preceding it are good clear crimsons free from purple stain, and well shaped. Comte de Beaufort disappointed me last year, which shows the necessity of patience with tender pot novelties.

14. *Removal of Briar Roses.*—Young trees may be moved every three years; but when they are old, and have been many years in the same place, it is better to root-prune them, and renew the soil around them carefully. In lawn holes they may be cut in a radius of 8 inches every year with a Grass edging knife; and new mould and dung should be given to them, and an equal quantity of soil must be taken away.

15. *Hide-bound.*—Scoring the bark, like Apple trees, is the only remedy. I have found it succeed with both stocks. Manetti stocks, with their tough thick skins, when exposed, are very liable to be hidebound.

16. *The Briar's affinity for Clay.*—I have found the poorest clay do good. I put a double handful of poor yellow clay to a Briar Rose, and found, that above the radius of the roots the stock threw out abundant filaments.

17. *One word to Propagators.*—Send out good Roses only, and on good Briars. Weed out all trash from your Rosery. Do not bud large quantities of unproven Roses. In your Catalogues describe the Roses negatively as well as affirmatively. Charge a good price for a good article, and remember that a bad Rose, or a good Rose on a bad or unsuitable stock, is not worth acceptance; and that with many persons it will impede the purchase of Roses that are really good.

18. *One word to Purchasers.*—Do not call nurserymen hard names because a Rose dies or does bad. They strive to please us, go to great expense, and often suffer great losses. As regards new Roses, they are obliged, by your haste for novelty, to sell by the characters which they have received with them from the raisers, before they have had time to prove them. When you get a novelty don't neglect it, and don't kill it with kindness.

19. *One word to Exhibitors.*—Cut your Roses for show with good stalks, and exhibit them with their buds and leaves fairly; and remember, that "Roses are not Races!" Fraud, under so fair a flower—a national flower—is a national sin, and a "transgression in a sin." Never use stiletto, pincers, gouge, or glue; but go and return from the show, winner or loser, with the inward satisfaction of an honourable man. You will never, then, have to regret, that you have partaken of those unworthy frauds, which are an injury to the public and the incipient "caries" of so good a cause.

20. *A Restraining Thought.*

"Be this the closing tribute of my strain!
Be this, fair Rose, of charms thy last and best!
That when the Son of God for us was slain,
Circled with you he sweetly sank to rest,—
Not the grave's captive but a garden's guest,
So pure and lovely was his transient tomb!
And He, whose brow the wreath of thorns had prest,
Not only bore for us Death's cruel doom,
But won for us an amaranthine bloom.

W. F. RADCLYFFE.

Rushton, July 12.

A FEW STRAY NOTES ON HORTICULTURE IN PARIS.

WHOEVER would go to Paris, with his mind full of new Roses, strangely spotted and striped Geraniums, gorgeous Marguerite Asters, and the other novelties, which our gay and lively neighbours are in the habit of exporting, for their own benefit and our gratification, and would expect to find that the state of gardening corresponded with the abundance of the exports, would be most grievously mistaken. But whoever, knowing the taste and nattiness of the nation, would expect to find the most made of what they possessed, would find his anticipations correct, and that in the matter of decorations we have some things to learn, though the immense difference of climate of course must be taken into consideration. Having recently given our readers a few notes on horticulture in Ireland, I now take the opportunity of a recent visit to what the French call the metropolis of the world, to add a few on the state of gardening there.

There is not any time of the year in which the gardens or public promenades look better than early in June; the sun has not had time to wither up the leaves, which it does despite of very assiduous waterings, and there is a freshness and greenness about them which we in vain look for later. The gardens of the Tuileries and the Champs Elysees are then in perfection, though the intensely cold and wet spring had somewhat retarded operations this year; but withal, they were looking very beautiful. It is, I know, the fashion with some to decry our London squares and public promenades, but I think with great injustice. Remember our climate; remember that London is a vast hive of industry, and not a city of pleasure, and I say that we do not suffer in the comparison. Certainly we have nothing to compare with the splendid quarter of Paris comprising the Rue de Rivoli, on to the Arc de Triomphe de L'Etoile; but let any unprejudiced John Bull go into that respectable quarter of London where Bloomsbury and Doughty and other squares exist, and I think that the foliage in early spring, the sweet Hawthorn, and the golden Laburnum, may be truly said to impart a charm to it by no means despicable; and the flower borders in Hyde Park and Kensington Gardens are, I think, equal to anything of the same kind in Paris. They have, however, some ingenious devices which I think we well might copy; for instance, Ivy is largely used as an edging, and I should think would answer admirably in our climate, in such places as Hyde Park; when well trained, it has a fresh and pleasing effect, and with thickly-planted masses of scarlet Geraniums behind would be very attractive. Then, again, in places where Grass grows with difficulty, they seemed to me, with a little extra expense, to meet the case admirably. In the Place Louvois, where my hotel was situated, there is a small plot, and when I was there in November it was quite bare; but now, round the fountain which plays in the centre, was a raised Grass mound, looking quite fresh and lively. On examining it I found that it was obtained by sowing very thickly with Grass seeds, and these I presumed, from the appearance, were only intended to be considered as annuals. I saw

men afterwards engaged in the operation at the Champs Elysees ; the seeds were being sown *very* thickly, and leaf-mould finely sifted over them. Of course this is all to be at an end, if we are to believe one-thousandth part of what is said of *Spergula pilifera*, but more of this by-and-by. Plants are used for the purposes of decoration which it would be vain for us to attempt. There was in one place a bed of India-rubber Plant (*Ficus elastica*) ; in another, one of *Caladiums* ; in another, *Begonias* of various sorts. In their bedding out they have sometimes to learn of us. I saw no attempts at ribboning, or any such kaleidoscope system as we have at the Crystal Palace—*Geraniums*, *Calceolarias*, *Heliotropes*, &c., all being mixed together, and their beauty somewhat marred, I thought, by this. But if they might thus learn from us, we might surely learn from them in our sale of flowering plants. Nothing can be more enticing than their “*Marché aux Fleurs*,” in the Place de la Madeleine, one blushed to think of our Covent Garden, about which we talk so much, but which I hold to be a dirty, dingy place, utterly unworthy of the great name we have justly obtained. The plants themselves were nothing very wonderful ; small well-bloomed *Heliotropes*, fancy and other *Pelargoniums*, *Roses* in pots, *Mignonette*, &c., but each enveloped in a nice sheet of white paper, ready to carry home.* One does not know what the Floral Hall is intended to be, but surely something more worthy of the well-deserved pre-eminence of English gardening might be erected for the sale of plants, than the dreary arcade of Covent-garden. *Horse-Chesnuds* and *Plantains* seemed the favourite trees for decorative purposes, and immense pains are taken with them to make them grow. In winter, they are regularly swathed, and in summer most diligently watered, but it will be long ere the Boulevards acquire that beauty of which successive revolutions have deprived them.

And now a word as to the nursery gardens. I knew very well that in all that pertains to cultivation we are immensely beyond our neighbours, but I was not quite prepared to see such miserable apologies for nurseries as I saw—untidy, mean, small, they were such as you might see in a third or fourth-rate provincial town in England.† I visited one, that of Mons. R. C., close to Pere la Chaise. The garden was not half an acre in extent, the greenhouses were rather pits than houses—old, dusty, and dark—the plants crowded together, full of fly, lanky and drawn, but full of bloom. The greater portion of the *Pelargoniums* (for of them I speak) were of the kinds we call French kinds ; and I saw one or two curious novelties that will, I doubt not, make their way over here. *Verbenas* were not planted out (June 12), so I could say nothing about them. There were some pretty-looking *Delphiniums*, but nothing new. Mons. R. had just purchased the *Orchids* of Madame Pescatore, said to be the finest collection in France ; if so, they do not do these things half as well as we do in England, for I question

* As an instance of the manner in which they adapt everything for ornamentation, there was a large number of pots containing the common *Oxeye Daisy*, and pretty enough it looked.

† I only mean in this to refer to the Parisian nurseries ; I believe many in the provinces are very different.

if Messrs. Spode, Ellis, or my Lord of Winchester would have given them house-room. The prettiest flower I saw there was Madame R., who was quite *au fait* at everything; and I was quite certain, from the injunctions she was giving her *petite*, that French children are quite as fond of Strawberries as English ones. I went also to M. L.'s Rose nursery. Of these he has three or four, but ground is now becoming so valuable in every quarter of Paris, that very shortly nurseries will be banished outside the fortifications. The Roses were, owing to the backwardness of the season, not yet in bloom, at least not the new varieties, and I quite marvelled that on such a soil they could look as well as they did; it seemed to me hot and dry, yet buds had made vigorous starts, and older plants looked well. As far as price is concerned, let no one go to Paris for anything now, in the hope of getting it cheap. I verily believe even French goods are as cheap, if not cheaper in London, and everything else dearer in Paris. Roses were 100 francs a hundred. This is what Mr. Rivers, or any other nurseryman, would supply them for. Perhaps Tea-scented Roses are cheaper, but if so, they alone are. I heard high praises of Eugene Appert; and another, Louis Quatorze, was highly spoken of. They were preparing for an exhibition, to be opened in a few days at the Palais d'Industrie; and such rummy little stages as they had, and yet they say (*vide Gardeners' Chronicle*) that the exhibition was striking in the extreme, owing I suppose to their great taste. On the whole, I felt satisfied that while the French may beat us in armies, in architecture, in decoration, in inventive genius, and indeed in the originating of new varieties of flowers; that in cultivation, in order and cleanliness and all that pertains to the difficulties of gardening, they cannot come near to us; and I do not wonder that when they see one of our Regent's Park exhibitions they should open wide their eyes, shrug their shoulders, and cry, "Magnifique! superbe!" In such peaceful matters may we ever hold the foremost place!

Deal, July 12.

D.

THE PEACH IN 1860.

IN our last article, we stated that unless we could show that a glass covering for Peach walls could be made to pay, some other kind of fruit had better be substituted for the Peach, unless in very favoured spots. We also then estimated that the cost of covering with glass a Peach wall and border would be 6*d.* per foot super. Since that was stated, we have gone into the matter more closely, and find that a fixed frame, to cover a Peach border, can be put up and glazed for that sum. We therefore proceed with the description. If the wall is 12 feet high, the glass frame should be about 10 feet in width, which will make the glass roof about 12 feet long, and so on, for lower walls. A top and bottom rail will be required, the lower one being supported by upright oak posts placed in the border every 10 feet, and a sufficient depth to keep them firm; they should also each have a spur nailed to their front, to keep them from being thrust forward by the outward pressure of the frame above. Just beneath the coping of the wall, rafters two feet long and

six or eight feet apart, should be inserted at a low angle pointing upwards; and to these the upper rail (which is to receive the sash bars) will be fastened by an iron plate and screws, but not by a dove-tailed joint, as we wish to take to pieces every part of the frame at pleasure. By this arrangement, the upper part of the frame will be rather higher than the wall. The return roof will be used as a ventilator; it may either be weather boarding, made of $\frac{3}{4}$ -inch deal, and painted with Carson's paint, or glazed, according to the means of the builder. A plate will lie between each of the short rafters supporting the upper rail, and to these the back ventilators or lights must be hung and adjusted, so as to be moved upwards at pleasure, for ventilating. The space between the lower rail and border should be filled up by two weather boards one foot wide each, hung between the upright posts, and made moveable by working on a centre pin, so as to open and shut at pleasure, on the louvre principle; by which means the largest admission of air can be given, which, with the admission from the back ventilators, will be found sufficient, even in the hottest weather.

The most convenient sized squares are those 12 inches wide and 18 or 36 inches long. Four or eight squares will then be required to glaze each bar of 12 feet. The bars to receive the glass should be $1\frac{1}{2}$ inch wide by the same in depth, leaving a bead down their centre half an inch wide and in depth as much as the glass is in thickness, to form a rabbit for the glass. A groove must be run down each side of the centre bead to carry any moisture getting in under the glass down to the front. The bars may have either a plain cant or be moulded on the underside, at the option of the builder. Each bar must have a slight cast-iron shoe for its upper and lower ends, which will screw on to the plates or rails, so as to keep them entire, and also to allow of the bars being removed, and the whole taken to pieces when required. Three small brass pins are fixed on the lower rail, against which the lower tier of squares will rest. The squares should be placed edge to edge, and not made to overlap each other, as in ordinary glazing, and therefore in laying the squares they should be picked out to match each other in thickness, and they will also require to be cut very true, that when placed together they may form a water-tight (or nearly so) joint. We recommend that no putty should be used, but if the bars are not worked very smooth, a thin strip of India-rubber should be placed on the bars under the glass, which will enable the fastening to be screwed down tight, without fear of breaking the glass by pressure. For the fastening material either felt, cork, or iron screws 1 inch or $1\frac{1}{4}$ inch square may be used; in which case a piece of thick India-rubber $1\frac{1}{2}$ inch square, with a hole in the centre to admit the screw, should be placed at the angle where each four squares meet, up the bars, and this will be screwed down tight to the glass, and will keep each four squares firmly fixed. If cork or felt is substituted, ordinary screws will serve; the screw will be in the centre of the beading, and it will be obvious that the rabbit should not be deeper than the glass, or the latter will not be kept firm. When the upper tiers of glass are placed, a strip of 1 inch deal, about 4 inches wide, is placed 1 inch over the glass, to keep them in their places, and also serves for the back ventilator to fall against.

The back ventilator might be made to work by means of machinery made to open and shut the whole at pleasure ; this would be expensive, and a simple flat iron rod attached to each, with holes in it to fit into pins let into the wall, answers every purpose, though giving a little extra trouble.

We will give woodcuts in your next, showing the shape of the bars, &c.
G. F.

FERNS.

To all who are fortunate enough to live away from the smoke and soot of towns, an open-air Fernery cannot fail to afford interest ; for such a sheltered and shady situation should be chosen ; a ravine with sloping banks, and a small rivulet running through it, is just the place for hardy Ferns ; and to aid in forming a collection where facilities exist for their growth, as well as pointing out the means of examining the plants in their native localities, the following extract from the Rev. Mr. Venables' " Guide to the Isle of Wight " may be found useful:—

So general an interest has lately been taken in the study and cultivation of these elegant plants, that at the risk of repetition, some further details may be allowable in this class, since only a few of the rarer species have been noticed along with the flowering plants.

The localities which are in the Isle of Wight most productive of Ferns are chiefly situated upon the lower greensand formation, which both in itself offers stations more favourable for their growth, and abounds in those boggy woods and heaths, in the absence of which many of our finest species could hardly flourish. Not that any of the hedge-banks are deficient in the commoner kinds, such as *Polystichum angulare*, *Lastrea Filix-mas*, and *Scolopendrium*, which are plentiful in every shady lane, and *Polypodium vulgare* and *Asplenium Adiantum-nigrum* are scarcely less general ; but when to them we have added the universal *Pteris aquilina*, it requires some little search and observation to detect a good proportion of the other 14 species, which raise the total number to 20. There are besides five kinds of *Equisetum*, but no Club-moss has yet been found to inhabit the Isle of Wight.

Ceterach officinarum is very rare in the Isle of Wight. It grows abundantly on Brading church about the south porch. The walls of Carisbrook Castle are another locality.

Polypodium vulgare (common *Polypody*) is general and abundant. It has been found with forked pinnæ and with fronds doubly pinnatifid, in the Undercliff and at Brightstone ; and it is not unusual to meet with fronds bearing pinnæ more or less deeply serrated, as at Quarr, Grove, &c.

Polystichum aculeatum is exceedingly scarce. A single root was discovered at Bembridge by the late Dr. Salter. A few other plants may still exist in what was once Little Smallbrook Copse ; and it is thought to have occurred also near East Cowes.

Polystichum angulare is abundant on hedge-banks and in woods.

Lastrea Thelypteris (Marsh Fern) is not very rare, though local. The chief stations are in different boggy thickets along the course of the

main river or East Yar; as, near Alverstone above the mill; in Alverstone Lynch; at Knighton; at Newchurch; and Merry Gardens. Along the Medina it abounds in the wettest parts of the Wilderness, and in a boggy meadow at Cridmore. There are besides two outlying stations; one a Willow thicket north-east of Compton Grange; the other in the marsh at Eaton Freshwater Gate, where it is plentiful.

Lastrea Oreopteris (Sweet Mountain Fern) is very rare, if not extinct. America Woods (Apse Castle) near Shanklin, and a low wet bank at Guilford are the only ascertained stations; in both it has been lately sought unsuccessfully.

L. Filix-mas (male Fern) is plentiful; the variety with incised and sometimes elongated pinnules is not rare in shady woods; the variety *palacea* or *Borreri*, with abundant ruddy scales on the stipes, occurs in many places, especially upon peaty soil.

L. spinosa is not common; but will be found to inhabit most of the boggy Willow thickets, &c., often in company with *L. Thelypteris*.

L. dilatata occurs wherever there is a bog, and also on the shady banks of deep-cut lanes.

Asplenium Adiantum-nigrum (Black Spleenwort) is common throughout the sandy district; but is more sparingly distributed elsewhere.

A. Trichomanes (Common Spleenwort) is rare. The rocks in the Undercliff; West Cowes; Quarr Abbey; Carisbrook Castle; Chale and Shorwell, are the principal localities. I have more than once heard the name of "Maidenhair" applied in mistake to this species..

A. marinum (Sea Spleenwort) used formerly to grow in very small quantity upon some rocks at Niton, but it is believed to have been completely eradicated.

A. Ruta-muraria (Wall Rue) is rare. Ryde; Arreton Church; East Cowes; Calbourne, and Freshwater churches, are the localities where it has been found.

Athyrium Filix-fœmina (Lady Fern) with most of its varieties, is abundant wherever the soil is boggy.

Scolopendrium vulgare (Hart's-tongue) has been found bifid and multifid, crested, and crisped, &c.

Pteris aquilina (Brake) is plentiful, especially on the heathy commons; it grows even on chalk upon the north slope of Bembridge Down.

Blechnum boreale (Hard Fern) is local, but not of very unusual occurrence, chiefly in the boggy parts of the sandy district.

Osmunda regalis (Flowering Fern) its usual companion, is the more generally distributed of the two; like the *Blechnum*, it abounds most along the course of the East Yar and the Medina, and other places upon the greensand.

Botrychium Lunara (Moon-wort) is rather rare; Nunwell; Shanklin; Landslip; and especially the Wilderness and Rookley, are the known stations, but it requires a close and careful search to find so small a plant.

Ophioglossum vulgatum (Adder's-tongue) is not very uncommon. It grows in several damp meadows about Bembridge; in the Undercliff; about Appuldurcombe, and in the Wilderness; in Parkhurst Forest; and in the marsh at Easton.

It will be observed that *Lastrea Fœnisecii*, *Asplenium lanceolatum*, and *Hymenophyllum Tunbridgense*, are apparently wanting in the Isle of Wight, though any one of them is likely enough to occur.

WASHINGTON POMOLOGICAL MEETING.

THE following extracts will show that the subject of pomology is discussed and well studied by our transatlantic friends. The Hon. Marshall P. Wilder, of Massachusetts, founder of the society for the encouragement of horticulture and agriculture, said that on the formation of the Massachusetts society there were only three or four nurseries in that region, while now they were numerous and cultivated in the best manner, covering hundreds of acres. In Rochester, there were nurseries each covering 300 or 400 acres, and in three counties there were 50,000,000 of trees for sale, the scions of many of them having been sent out by the Massachusetts Horticultural Society.

Strawberries, Mr. Wilder said, were almost unknown there in 1829, and now they had become an important and profitable crop. He illustrated this by stating that two-fifths of an acre of ground in Belmont, last season, yielded at the rate of 1300 dollars per acre. The Apple, said he, is the great product of the farmer, and he would mention the quantity exported from Boston in the winter 1858-59; this was 120,000 barrels, and the majority of these were Baldwins. He said he had so often spoken of the practical methods of cultivation, that he would only glance at the most important matters now. The first and most important point is thorough drainage. Next, the ground should be thoroughly and deeply worked; and to show the benefit of this he spoke of Parsnips and Horseradish three feet long, which were grown in a garden, the soil of which had been thrown up from a cellar, and was thoroughly worked. He also spoke of a Pear tree he had seen in a garden in Roxbury, where the soil was four or five feet deep, drained by a rivulet flowing through the ground; and which produced last season 800 Pears, while one he had of the same size and age, but not having the same advantages as the Roxbury one, only bore 100. Digging circles round trees, he added, is of doubtful utility. He mentioned a Peach tree, to illustrate his position, that had a heap of manure lying 15 feet from the trunk, that pushed shoots four feet long from the feeding of the manure; this digging among the roots is consequently injurious. Circle manuring don't feed the roots, as they run beyond it on one side or the other. More orchards are injured by deep digging and deep ploughing than by anything else. He would allow no ploughing in his orchards, and only used a hoe to scarify the soil, manuring on the surface, and working it in with a hoe or a light cultivator, and this was done in the autumn. The Baldwin Apple was next introduced, concerning which Colonel Stone said if he was going to plant an orchard of 1000 trees for profit, 999 should be Baldwins. Many people, he observed, declined to engage in fruit growing because so many fail, but a good orchard could be obtained as easily as a crop

of Potatoes or Corn, with less labour and greater profit. The Colonel then spoke of the Messrs. Clapp, of Dorchester, who, by systematic culture, raised on five acres of land, planted with Apple trees, 600 dollars worth of Currants as an under-crop, while they had each year a large crop of Apples. He said that the Pear had been considered more difficult to cultivate than the Apple, but he was satisfied that in the first 15 years he could make as much profit from an equal number of trees as he could from Baldwin's Apple, although they would require different treatment. The chairman said that Currants were an exception as an under-crop in orchards, as they will grow in the shade, and bear abundantly where no other crop will succeed. Alluding to under-crops, the Colonel thought for the first eight or ten years ploughing would not hurt the trees, and he would recommend the raising of root crops, so as to keep the ground free from weeds.

In reply to a question relative to pruning, Mr. Brown said,—if a tree is pruned late in spring, when it is in full activity, and all the pores full of sap on its way to the twigs, buds, and leaves, there to be elaborated into the food that goes to form wood and fruit, the sap will, in most cases, pour from the wound, and keep the pores permanently open. The continuance of this impairs vitality, and sometimes destroys the tree; but if the pruning is performed at the proper season, the wound readily heals over. Our ancestors through habit having continually performed this operation at a wrong season, the result is, there is scarcely an orchard in New England 30 years of age which does not bear unmistakable evidence of this unnatural and untimely pruning.

AURICULAS.

So Dr. Plant never had a worse Auricula bloom, and I never had a better, nor so good; and therefore I may be permitted to regret that there was no national exhibition this year, and to console myself with the belief, as everybody else does of *himself*, that if there had been one, "Iota" would have stood first in its list of prizes. In reality, I do not believe, although the times are so difficult to fix so as to suit all exhibitors, but that at any time during the season of bloom he would have stood high; and if he could have chosen his day, it would not have been easy to surpass his lot. In fact, I have never till this year seen anywhere anything like such a collection of fine trusses of so many varieties as I have now had in my own boxes, nor have my plants ever before shown such a state of health. As "D." has promised us an account of the bloom of the year, I will not enter into the matter; but it may be useful to state that the leading truss with me in each class was by no means what I should have expected, namely, in green edged, Headly's Conductor, with 13 pips; in greys, Chapman's Maria, with nine; in whites, Heap's Smiling Beauty, with 13; in selfs, Martin's Mrs. Sturrock, with nine. Nor do I think the four could be excelled. The last, after growing it four years, I have no hesitation in ranking as the best self yet let out. And I now withdraw what I said, three years

ago, that Maria is not a show flower ; for with me this year it was as trustworthy for the exhibition table as it always is unrivalled and unapproached for beauty of colour. I have about 100 named varieties, and very few of any note are unrepresented among them. In fact, if I were not known to be a squeezable mortal I should have rather a large stud of the rarer kinds. "Before I sit down" I may mention, that of the novelties, Lycurgus, though not a faultless flower, may be admitted to be worth its price to a purchaser of new things. It has bloomed with me two years, and I was sorely tempted to send the plant this season to be subjected to Mr. Andrews' skill, in its truss of seven, two pips having been taken off, when expanded, to send to as many "inspectors." Among my green-edged trusses of the year, I assigned it the third place, and it is as distinct as any flower we have.

IOTA.

SCOTTISH PANSY SOCIETY.

THE sixteenth annual meeting of this Association was held in connection with the Glasgow and West of Scotland Horticultural Society, George Square, Glasgow, on the 6th ult. The late severe winter and cold backward spring prevented many from competing. The flowers were not so numerous as we have seen them on some former occasions. The duty of the judges, however, was no sinecure, as the competition was well contested. The prizes were awarded as follows:—

Nurserymen: 24 Dissimilar Blooms. 1, Messrs. Downie & Laird, Edinburgh, with Ladyburn Beauty (White & Sinclair), Royal Standard (Dickson & Co.), Duchess of Wellington (Downie & Laird), Rev. Joshua Dix (Do.), Lord Cardigan (Do.), Miss Talbot (Dickson & Co.), Countess of Rosslyn (Do.), Francis Low (Downie & Laird), Mary Lamb (Douglass), Perfection (White & Sinclair), Una, Miss Carnegie, General Young (Hooper), Mr. F. Graham (Douglass), Cream of the Valley (Hooper), Nepaulese Chief (Paton & Small), Venus (Hooper), C. W. R. Ramsay (Douglass), Alex. M'Nab (Downie & Laird), Captain Hall, Jessie (Hooper), Mrs. Laird (Downie & Laird), Mrs. F. White (Do.), Mrs. Downie (Do.) 2, Mr. G. White, Paisley. 3, Messrs. Robertson & Paul, Paisley. 4, Messrs. Dickson & Co., Edinburgh.

Practical Gardeners and Amateurs: 18 Dissimilar Blooms. 1, Mr. Fraser, Belmont, with Earl of Derby (Black), Countess of Rosslyn (Dickson & Co.), William (Reid), Rev. Joshua Dix (Downie & Laird), Royal Standard (Dickson & Co.), Duchess of Wellington (Downie & Laird), Alice, Mr. F. Graham (Douglass), Mary Lamb (Do.), C. W. R. Ramsay (Do.), Titan, Captain Hall, Una, Sir J. Cathcart (Turner), Ladyburn Beauty (White & Sinclair), Cream of the Valley (Hooper), Lord John Russell (Turner), C. M'Intosh (Downie & Laird). 2, Mr. James Thompson, Silverknowe. 3, Mr. Arch. Dunlop, Ingles Green. 4, Mr. Wm. Perrey, Broomfield, Davidson Mains.—12 Dissimilar Blooms: 1, Mr. Prentice, gardener, Burnbrae, Paisley, with Eugene (Dickson & Co.), Emperor Napoleon (Hooper), Lizzie (White & Sinclair), Mrs. Dodwell (Holland), Countess of Rosslyn (Dickson & Co.), Perfection (White & Sinclair), Duke of Sutherland (Oswald), Jeannie (Downie & Laird), Mr. R. Masson (Do.), Duchess of Wellington (Do.), Optimum (Robertson & Paul), Ladyburn Beauty (White & Sinclair). 2, Mr. John Frazer, Belmont. 3, Mr. Wm. Perrey, Broomfield. 4, Mr. W. Wilson (amateur), Cathcart.—Six Dissimilar Blooms: 1, Mr. Prentice, Burnbrae, with Duchess of Wellington (Downie & Laird), Col. Windham (Dickson & Co.), Captain B. Steuart (Douglass), Seedling, Jeannie (Downie & Laird), Countess of Rosslyn (Dickson & Co.) 2, Mr. C. Watson (amateur), Dunse.

Amateurs exclusively, who cultivate their own plants: Six Dissimilar Blooms: 1, Mr. Dobbie, Renfrew, with Sir Colin Campbell (Paton & Small), Captain B. Steuart (Douglass), Mary Lamb (Do.), Seedling, Col. Windham (Dickson & Co.), Gem (Syme). 2, Mr. W. Wilson. 3, Mr. C. Watson.

Open to all: 12 Dissimilar Blooms in Classes—four selfs, four light grounds, and four yellow grounds: 1, Messrs. Downie & Laird, with Jeannie (Downie & Laird), Rev. Joshua Dix (Do.), Ladyburn Beauty (White & Sinclair), Alex. M'Nab (Downie & Laird), Mrs. Downie (Do.), C. W. R. Ramsay (Douglass), Francis Low (Downie & Laird), Saturn, Col. Windham (Dickson & Co.), Mary Lamb (Douglass), Countess of Rosslyn (Dickson & Co.), Mrs. Laird (Downie & Laird). 2, Mr. James Thompson. 3, Mr. W. Perrey.

Single Blooms: Gardeners and Amateurs: Self, Mr. James Thompson, with Alex. M'Nab (Downie & Laird); yellow ground, Messrs. Downie & Laird, with Perfection (White & Sinclair); light ground, Mr. George White, with Mary Lamb (Douglass). Best flower in the room, Mr. J. Thompson, with Alex. M'Nab (Downie & Laird).

Amateurs exclusively: Dark self, Mr. James Dobbie, with Gem (Syme); yellow self, Mr. William Wilson, with Yellow Model (Hooper); light ground, Mr. Wm. Wilson, with Countess of Rosslyn (Dickson & Co.); yellow ground, Mr. C. Watson, with Mrs. Downie (Downie & Laird).

On this occasion new flowers were scarce. The judges were unanimous in awarding a first class certificate to Messrs. Downie & Laird for a yellow ground flower named Francis Low. We observed a fine yellow ground flower in the stand of Mr. Wilson (Cathcart); this, however, was not shown to the judges as a seedling; it was named Tom Sayers. We hope he will think better of it before he shows it as a seedling, and give it a name more in accordance with the peaceful habits of Pansy growers.

The first week in June is too early to give the growers about Glasgow a chance in a friendly competition with their more favoured neighbours around Edinburgh. Some of the best growers in the west were unable to fill a stand of six, their flowers not being forward. Now this detracts from the usefulness of this truly useful Society, which grants no certificate to any flower but what has superior merit, and is a safe guarantee to the purchaser. The first week in July would be a better time for the Glasgow grower. Why not do as the cattle dealers sometimes do when they come near a bargain—split the difference? Many of the growers in the west are so soured we fear we may lose them as members altogether. We hope the members of the Society will take this into consideration before they publish the circular for 1861. Besides, the earliness of this show prevents many new flowers being seen, which forms not the least prominent attraction. Whatever way the members may think proper to arrange, we wish the Society every prosperity—the same prosperity it has had all along. No doubt the Pansy world has to thank it for the many gems which adorn our gardens of this now beautiful flower.

The next annual competition will be held in Edinburgh in 1861.

TONBRIDGE WELLS HORTICULTURAL FETE.

IN the midst of the incessantly dripping weather that we experienced in June, it was a matter of no small anxiety to have a fête fixed for a provincial town, as a wet day very often is the death-blow of a Society.

Many and anxious were the looks directed to the threatening skies for days previous; and as Wednesday and Thursday gave their usual proportion of wet, it became still more hazardous; but the weather cleared off, and Friday, the 22nd, was really a fine day; consequently, this annual fête was most successful, and a large number of visitors, including the ex-Queen of the French, her family and suite, attended. We can hardly find space in our monthly periodical for more than a short notice of provincial shows, but we gladly notice this, as a vast improvement has taken place in it; and when we mention that Mr. Whitbread was there, with some of Mr. Collyer's magnificent plants that had done duty at the Regent's Park the day but one before; and that Mr. M'Murdo, of Hastings, and Alderman Salomons were exhibitors, we think that our readers will understand that the plants were of no common order. The Committee had very wisely altered their schedule this year, offering prizes for flowers, which enabled small growers to exhibit; and the consequence was, that an impulse has been given to horticulture in the neighbourhood that must be beneficial; there is no place in England where flowers can be better grown, and now that they are on the right track, we doubt not great good will result. The stove and greenhouse plants were generally well grown, but Pelargoniums sadly behind-hand; wrongly grouped in many cases, and in nearly all deficient in bloom. There is something wrong in the method of growing, or this would not be the case. All out-of-doors flowers of course were scarce, and cottagers were not able to contend with their usual spirit, but no one could walk round the tents, and see the beauties there displayed, and contrast them with the previous year, but see "Onward" was the motto. The committee worked hard, and had the pleasure often denied even to earnestness, success. Where all were zealous, it might seem invidious to mention names, but we believe every one connected with the show felt that to the Rev. George Golding especial thanks were due for the zeal and energy with which he has laboured to achieve success for the Society, "*sit perpetua.*"

Deal, July 1860.

D.

DARTREY HOUSE, MONAGHAN, IRELAND.

THIS, the residence of Lord Cremorne, is beautifully situated two miles north west of Cootehill. The approach to the mansion is from the Cootehill Road, to which the Park extends—a noble area occupying many acres, and containing a fine piece of water, in the shape of a lake, several miles in length; it is also finely ornamented with trees, both single and in groups. Within the last few years, the present mansion has been rebuilt from designs by Burn; and is a building of considerable architectural importance, overlooking two pretty terrace gardens, through which a broad central gravel walk passes from the house to the lake. On each side of this is a row of Portugal Laurels, planted in square beds, so as to represent an Orange grove—an idea which is skilfully carried out and with excellent effect. Irish Yews are also employed here in forming lines of walks, and are likewise very effective associated, as they are,

with noble vases filled with large Geraniums, such as Tom Thumb, Cerise Unique, Commander-in-Chief, Ivy-leaved kinds, and other plants suitable for vase decoration. In the middle of the lake, opposite the mansion, is an island, which is reached by a bridge. Some very fine timber trees grow on this island, round which is a carriage drive, and *Rhododendron ponticum* and other shrubs fringe the water's edge. Seen from the house, when in flower, these give life and beauty to this pretty spot. From this part of the pleasure grounds are some highly picturesque views. Before quitting the flower garden, we may just state that the beds were well filled, but owing to the unfavourable season the plants they contained had made but little progress; in fact, at some places, the more tender kinds of bedding plants are quite dead—even *Defiance Verbena* has shared the same fate, although not planted out until the last week in May. Passing the north wing of the house on our way to the kitchen garden, we come to a piece of ground on which is to be erected a large conservatory, in connection with the mansion. In the kitchen garden are three Vineries, two Peach houses, plant stove, orchard house, two ranges of pits, frames, &c. The first Vinery is filled chiefly with pot Vines for table decoration; Hamburgs and Sweetwaters are the principal kinds grown here for that purpose. In the second Vinery was a fine crop, the bunches being large, well shouldered, and furnished with fine berries; the sorts were Black Hamburg, West's St. Peter's, Black Prince, White Nice, &c. Mr. Gray, who is gardener here, had budded on those old Vines of Black Hamburg, just as they were coming into leaf, the Bowood Muscat and Golden Hamburg, and each bud was carrying a fine bunch of fruit. Why not try the Cannon Hall Muscat on the "budding system," which seems to accelerate the fruiting properties of Vines, and affords a ready way of proving new varieties of Grapes?

The first house of Peaches was in a forward state; the trees were loaded with fruit.

Two ranges of pits have been recently erected, each 90 feet in length. The front pit is divided into four divisions by means of glass partitions, heated by hot water—in 4-inch pipes for top heat, 3-inch pipes being used for bottom heat. This house or pit has a narrow passage along the back. Two of those divisions are filled with Pines plunged in tan. Air is admitted by means of openings in the front wall, passing under the hot-water pipes, and thus becoming heated before it reaches the plants inside. Another division was filled with pot Vines for fruiting next season. The last division in this range was filled chiefly with Cockscombs, among which were some of the finest specimens I ever remember to have seen; they were grown in 8-inch pots. The plants were about a foot high, and their combs nearly touched the pots on each side. This was a dark-leaved variety, which I believe was received from Scotland. The other pit runs parallel with that just noticed, and is used principally for growing Melons and Cucumbers in. The Melons were looking remarkably healthy, and were producing plenty of fruit.

The plant stove is a span-roofed house, and contained a nice collection of plants, among which were some fine Begonias, remarkable for the beauty of their leaves; the best of these were *Rex*, *splendida*, *grandis*,

Leopoldi (a Belgian hybrid), Marshalli, and Dominiana. This house also contained Marantas, Aphelandras, Crotons, Dracænas, Orchids, &c.; and associated with these was also a goodly collection of Ferns and Lycopods, the whole producing an excellent effect.

The orchard house is a large span-roof structure 70 feet long and 30 feet in width; it contains a good collection of fruit trees in pots, which are arranged in a bed in the centre of the house. Many of the trees were loaded with fruit—Plums, Pears, Cherries, Figs, and Apples, were particularly good. Figs do not ripen fruit on the open wall, they are therefore grown largely here in pots.

The kitchen garden is divided into four compartments by means of two centre walks which intersect each other in the middle of the garden, where there is a large basin of water, a most useful appendage to a kitchen garden. The squares were chiefly occupied with vegetables and Strawberries; the last I fear will be scarce this season in this part, on account of so much wet weather at the time of "setting." A row of espalier Apple and Pear trees, surrounds each division, and furnishes nice crops of fruit. The border next the walk is ornamented with flowering plants, which, when in full bloom, present a gay appearance. Wall fruit is pretty good here, with the exception of Peaches; a south wall covered with them has heretofore annually produced excellent crops, but alas! disease, so much complained of this season, has played sad havoc among the trees, which are in very bad condition, and have only a few starved-looking fruit at the points of the topmost shoots. The cause of all this, I presume, to be mainly owing to the low temperature of the present spring following the severe frost of last October. The Acton Scott proves the best Peach for this climate. On a west wall, I noticed a fine crop of May Duke Cherries. Bush fruit is generally good. Notwithstanding the unfavourable state of the weather for keeping down weeds, every place was remarkably neat and clean; and skill, energy, and perseverance were apparent in every department.

Ireland, July 16.

D.

GRAND NATIONAL ROSE SHOW.

"GENTLEMEN of the Jury, I do not think that the prisoners at the bar, (No, I can hardly call them that), the distinguished personages before you, many of whose future position in Society, nay whose very existence itself, depends on the opinion you are pleased to express upon them, have had a fair chance as yet, and therefore I beg to ask that the venue may be changed; and I appeal to your English sense of justice that although the greater portion of these ladies and gentlemen are foreigners, that you will accede to my appeal." Such has been in substance the pleading of the chief counsel and head champion of the Queen of Flowers, and which, in its consequences drew the *elite* of the floral world to Sydenham on the 12th ult., some to contend for prizes, and others to see the prizetakers, in the largest and most magnificent Rose show that ever was held, and which, as I have hitherto been the

humble chronicler of its predecessors, I venture to give a report of. No one can rightly estimate the value of the change who has not seen the show under both aspects—the squeezing and crushing, the fight for room, the noisy din of a noisy band, and the heated atmosphere, could only have been endured by an unconquerable love of the flower, or a desire for a squeeze, which I verily believe some people heartily enjoy. Well, on the 12th there was space for exhibitors, breathing room for judges, perambulating room for visitors, and convenience for all. It had its drawbacks; it was a long way off; it was no easy matter for exhibitors to get their boxes up those long flights of steps; refreshment rooms were not open so early, and persons who had been travelling all night found it difficult to recruit their fast vanishing strength; but some of these mishaps were remedied, and Mr. Hole, when he saw the array of Roses, and the extent of the competition, I am sure did feel not a little proud of his own child. The flowers were arranged on tables 300 feet long and 7 feet wide, running down the centre of the nave, near the exotic department, the boxes being arranged on each side; Mr. Paul's very fine collection of pot Roses occupying the middle part of the centre, and two collections of fifty Roses in pots from Mr. Francis and Mr. Turner being placed at either end, the intervening spaces being filled up with Dracænas, Fuchsias, and other plants from the Crystal Palace establishment. Ropes were drawn tightly round, so as to prevent a too near ingress of the visitors, and a canvas awning was drawn over the tables, at some height, so as to give a very softened light, consequently the *coup d'œil* was very beautiful.

To give some general idea of the exhibition it may be sufficient to say that in letter A. alone there were 1800 blooms staged. Six sets of 300 blooms each; these could only be exhibited by nurserymen, and tolerably large Rose growers too. Then again in Class E. (for amateurs, 24 blooms), there were 16 boxes staged; in Class D. (48 blooms), nine; and in twelves, ten boxes. So that altogether there could not have been less than 7000 blooms of Roses entered for competition! The number of competitors had therefore very much increased, and I hope will increase still more and more. The Rose is one of those flowers which scorn to be dressed; you may twitch and turn about a Pink; you may (if you are dishonest) gouge out the eye of a Dahlia; but who would dare to dress the Queen of Flowers? who would twist her petals, or venture to flatten her face. Away ye sacrilegious fellows. Try not your hands on her fair face; and as to taking out *her* eye, you might as well offer to take out one of Our Most Gracious Sovereign's. She is affable, too, bringing herself within reach of some of the poorest of her subjects, and therefore ought to stand well with them. And so she does. But what about the flowers? well, we will take a look round. "Which do you consider the best box in the show," one was frequently asked. There was, as far as I could ascertain, but one opinion on this point, and that was that the palm was to be given to Mr. Keynes, of Salisbury, for his box of 24—a new exhibitor in Roses, though a veteran in other things, and who deserves immense credit for thus taking high honours. When the first show was held I ventured to say that Mr. Cranston's 24 was the best box of Roses ever shown. And so it

was *then*, but it did not equal this one of Mr. Keynes ; there was a size, freshness, and refinement about them that was very telling. They were also admirably arranged as to colour, thus : Madame Rivers, Pauline Lanzezeur, Souvenir de Leveson Gower and Juno, Madame Knorr, General Jacqueminot, Comtesse de Chabrillon, L'Enfant de Mont Carmel, Prince Leon, Gloire de Vitry, Stephanie Beauharnais, Géant des Batailles, Wm. Griffith, Souvenir de la Malmaison, L'Eveque de Nimes, and La Ville de St. Denis. And what could exceed the blooms of Eveque de Nimes, La Ville de St. Denis, Wm. Griffith, Prince Leon, Madame Knorr, Pauline Lanzezeur, Charles Lawson, Madame Vidot, General Jacqueminot, and Lord Raglan ? they all were grand in the extreme. The same may be said, with a very slight degree of difference, of Mr. Cant's 50 ; and perhaps, considering the large number, one would be inclined to give the greater credit to him.*

The collections of 100 blooms were fine ; it was clear, however, that the season had not been favourable to the west country growers ; the more favoured districts of Hertford and Sussex escaped a good deal of the severity which Herefordshire experienced, and hence Mr. Cranston was behindhand ; Mr. Mitchell, of Piltdown nurseries, near Brighton, taking first, and Mr. Paul, of Cheshunt, second. There are so many established Roses which one looks to see in every exhibition, and in every stand, that it will be needless perhaps to say that in most of them were to be found General Jacqueminot, Madame Vidot, Prince Leon, Mathurin Regnier, Gloire de Dijon, Géant des Batailles, Souvenir de la Malmaison, Lord Raglan, &c. &c. I shall therefore go at once to the newer Roses ; and first and foremost, those exhibited last year—EUGENE APPERT holds still the place I assigned to him last year—it is, in truth, a noble Rose, and unless I am very much mistaken will improve in shape as it is more grown ; it is such a magnificent grower and so thick in the petal that it holds its colour for many days after it is cut, thus, as I said last year, in every point beating the Géant ; the blooms exhibited by Mr. Standish were not a fair criterion of the flower—his is not a Rose soil, and hence it was not in character ; but there was one in Mr. Hole's box very fine. COUNTESS CECILE DE CHABRILLANT I still think so much like William Griffith that no one but a very practised Rose grower would be able to disqualify a stand for having two of either in it ; in the bud it is somewhat darker, but when expanded, they are as like as two Peas. ORIFLAMME DE ST. LOUIS (exhibited in Mr. Hole's box), is fine in colour, very much like in shape Jacqueminot, and *not* more double, which it was said to be. ANNA DE DIESBACH is large and flimsy, though bright, but will not, I think, be generally grown, being too coarse and loose for the general Rose taste ; the same may be said of ANNA ALEXIEFF, it may be very fragrant, but so is an old Cabbage Rose ; I do not think that French raisers have a right to bring forward a flower only for perfume. DUKE OF CAMBRIDGE, a fine flower, very much in the Prince Leon style, but to all

* Since this was written, I have seen Mr. Cant's Rosary, and greatly wonder that he should, from comparatively speaking, so small a collection, have exhibited such a stand of 150 blooms.

appearance a good grower, which the Prince is not; this will be, I think, generally grown. LORD PALMERSTON a bright red Rose, very showy, and apparently of a vigorous habit. The new Roses of the season were to be found in the two boxes exhibited by Messrs. Fraser, of Lea Bridge Road nurseries, and Mr. Standish, of Bagshot. It was a wise thought of the Honorary Secretary to offer prizes in this class, for it enabled growers and amateurs to see for themselves, and not to trust to the descriptions of our very imaginative neighbours. In Messrs. Fraser's lot, which obtained the first prize, were LE SENATEUR VAISSE, a good flower, of brilliant scarlet colour; VAINQUEUR DE SOLFERINO, very much like what the battle from which it takes its name was, *very confused*; ANNA DE DIESBACH, loose; MADEMOISELLE BONNAIRE, white, a flower of good form, and said to be of good habit; ALTESSE IMPERIALE, very dark, but its position questionable, notwithstanding its name; ARMIDE, good Rose, but not novel in colour; LOUIS QUATORZE, very fine in colour, of the Jacqueminot style, but I think more double; BELLE DE BOURG LA REINE (there's a jaw-breaker for an English gardener), satin-like Rose, but must be better than this or it will soon be lost sight of; MADAME BOLL, large and full, vivid Rose, said to be good in habit; ADMIRAL NELSON, scarlet red, very good; PRINCESSE IMPERIALE CLOTHILDE, white, very pretty indeed, and if its habit is good, an acquisition; VICTOR VERDIER, ragged; TRIOMPHE DE MONT ROUGE, bright carmine; TRIOMPHE DE LYON, very dark velvety crimson shaded with purple; MADAME EUGENE VERDIER, fine light-coloured flower, centre white tinted with rose. In Mr. Standish's collection were EUGENE APPERT (of this I have already spoken); FRANCOIS ARAGO, very dark, and of a dingy colour; DOCTEUR BRETONNEAU, also very dark. What Mr. Rivers could mean by his note in the Rose Catalogue this year, upon Eugene Appert, comparing it with these two Roses, I cannot understand. Surely the Nestor of Rose growers must have been napping, for three Roses more unlike one another cannot be. There was also MADAME STANDISH, a sweetly pretty Rose, small as shown, but as the bloom was cut from a 48-sized pot, this can be no criterion of size; JOHN STANDISH, not open, but evidently a Rose of the Jacqueminot breed, but of a most vigorous habit, the spray shown having 16 buds on it. COMTE DE FALLOUX, very pretty scarlet, delicate in habit, excellent for pot culture, and said to be a profuse and continuous bloomer. STEPHANIE BEAUHARNAIS, a bright reddish crimson, and likely to prove useful; and last not least, CELINE FORESTIER, a yellow Noisette of good shape, sweet colour, something like Solfaterre, and having the great recommendation of being wonderfully hardy; on the bleak exposed position of Bagshot it was the only Rose of the kind that withstood last winter; while Gloire de Dijon, Solfaterre, Devoniensis, Bougère, and others perished, this flourished vigorously; it was decidedly the gem of the new Roses, and will be, I fancy, as great a hit this year as Eugene Appert was last. Amongst Bourbons and Teas there was nothing novel. The French florists, finding that Hybrid Perpetuals are the vogue in England, seem chiefly to confine their attention to them; but they ought to be more careful

in their recommendations. There is no check upon them, as there is here, and hence flowers whose only recommendations are their long names and recent origin, are sent out only to be cast aside after a season's growth here. A grower must try all, lest he reject something really worth growing, and this involves great expense and bitter disappointments.

Amongst miscellaneous subjects exhibited were two boxes of Pansies and two of Pinks from Mr. Bragg of Slough, containing some fine flowers. A magnificent box of Pinks from Mr. Turner, of Slough; a box of the new Strawberry Oscar, from the same quarter, fully bearing out the character given to it; and a very splendid box of Verbenas from Mr. Perry of Birmingham, containing many new kinds the names of which will be found elsewhere. Nor must I omit to notice a glorious box of 12 blooms of Cloth of Gold, shown by Mr. W. Cant of Colchester, the finest I ever saw, and deservedly admired by all.

Such is a feeble account of the third Grand National Rose Show; an improvement in every way on its predecessors, and an encouragement to its able and indefatigable promoter to hope for even better days yet. May all go as smoothly as a marriage bell, and the Rose have many such reception days; and may Mr. Hole's wish one day be gratified, of seeing come to inspect the Queen of Flowers Her Majesty. Subjoined is a list of the awards:—

Class 1 (A).—1st prize, Mr. Mitchell, Piltdown, Maresfield; 2, Messrs. Paul & Son, Cheshunt; 3, Mr. E. Hollamby, Tunbridge Wells; 4, Mr. Cranston, Hereford.

Class 1 (B).—1st prize, Mr. B. Cant, Colchester; 2, Mr. E. Hollamby; 3, Mr. Tiley, Bath; 4, Mr. C. Turner, Slough.

Class 1 (C).—1st prize, Mr. Keynes, Salisbury; 2, Mr. R. Laing, Twickenham; 3, Messrs. Paul & Son; 4, Mr. G. Clarke, Brixton Hill.

Class 2 (D).—1st prize, Mr. E. T. Hedge, Reed Hall, Colchester; 2, Rev. S. R. Hole, Cauntton Manor, Notts; 3, Mr. C. M. Worthington, Caversham Priory, Reading; 4, Mr. S. Evans, gardener to C. J. Newdigate, Esq., Arbury, Nuneaton, Warwickshire.

Class 2 (E).—1st prize, Mr. J. T. Hedge; 2, Mr. S. Evans, gardener to C. J. Newdigate, Esq.; 3, Mr. Hudson, gardener to F. Barchard, Esq., Horsted-place, Uckfield, Sussex; 4, Mr. W. Mercer, Hunton, Staplehurst, Kent.

Class 2 (F).—1st prize, Rev. T. M. Wetherell, Flaxley Vicarage, Newnham, Gloucestershire; 2, Mr. C. M. Worthington; 3, Rev. S. R. Hole; 4, Mr. Terry, gardener to C. G. Puller, Esq., M.P., Youngsbury, Herts.

Class 3 (G).—1st prize, Mr. T. Mallett, St. Mary's Gate, Nottingham; 2, Mr. A. Fryer, Chatteris, Cambridgeshire; 3, Mr. T. Walker, Merton-street, Oxford; 4, Mr. T. Laston, Stamford.

Class 3 (H).—1st prize, Mr. A. Fryer; 2, Mr. H. Morris, Rose Villa, Cauntton, Nottinghamshire; 3, Mr. T. Mallett; 4th, Mr. T. Laston.

Class 4 (I).—1st prize, Messrs. Paul & Son; 2, Mr. E. P. Francis, Hertford.

Class 4 (J).—1st prize, Mr. Francis; 2, Mr. C. Turner, Slough.

Class 5 (K).—1st prize, Messrs. Fraser, Lea-bridge; 2, Mr. Standish, Bagshot.

Deal.

D.

PYRAMIDAL FRUIT TREES FOR ORNAMENTAL PLANTING IN VILLA GARDENS.

I AGREE with your correspondent "Malus" that fruit trees in shrubberies ought to be more abundant than they are, for they are quite as ornamental as most of our deciduous trees and shrubs at present in use, both in spring when in bloom and in autumn when laden with fruit; for who is there who does not admire either Apples or Pears, whether planted as standards, espaliers, or pyramids—whether in gardens, orchards, or anywhere else; besides, the value of the crop must be taken into account. For villa, and small gardens in general, I know of nothing to equal either Apples or Pears for ornamental planting, either as pyramids or bushes, intermixed with a few ever-greens, to give the garden a furnished appearance in winter. Plums also look well as pyramids, and produce a nice effect in autumn, when the fruit is ripe, particularly the large and high-coloured varieties. Pears are, however, in my opinion, most striking, but they must not be neglected; if they are wanted to look well and be productive they must be removed every two years or so, and have a little fresh soil added if the ground is poor; avoid over stimulant manures; if the trees grow too strongly without fruiting they require to be lifted annually and their strongest roots cut back, carefully preserving all the small fibres; as the trees get old, they will not require lifting so often, and will produce a good crop of fruit in most seasons; when young and growing they require watching, so as to stop all strong shoots, tying them wherever they are wanted, to maintain a perfect shape. A fruit tree, well managed, does as much credit to its owner as a pot plant on an exhibition stage, and is equally beautiful on a lawn as in a shrubbery. Anyone who does not care about the trouble of training them can buy large trees fit for immediate effect at most nursery establishments, and at reasonable prices. By using fruit trees for ornamental purposes, people with small means may in most seasons enjoy a good Pear or Apple for dessert during the greater part of the year, merely by taking care to make a judicious selection of sorts. The last place I lived at we had upwards of 70 Pears and Apples in the shape of pyramids and bushes, planted in a small space of ground, and a most beautiful effect they made, and were admired by everyone who saw them. On trees five and six feet high, I had Pears as large and of as good shape and flavour as ever I obtained from a large tree, and that not one kind only, but twenty or more sorts—growing on a stiff clay on the north slope of a hill, four miles north of London from the General Post-office. This therefore should encourage others to try the experiment.

J. R. B.

GISHURST COMPOUND.

IN the last number of the "Cornhill Magazine" there is one of the amusing "Roundabout Papers" by Thackeray, entitled "Thorns in the Cushion," in which he humorously shows the pains and anxieties

of editorship ; and inserts two either real or fictitious letters, threatening him with vengeance for some remarks he had made in one of his previous numbers. I am not quite in that position, but I have before me two exceedingly quiet and gentlemanly letters on the subject of a phrase I used in reference to the above composition. I said "Why will people puff such things?" I said this after having as I thought followed the directions on the paper, and syringed my greenhouse with it, the result of which was that my plants looked as if they had been done with diluted whitewash. Smarting under the infliction, I may perhaps have used strong words in the above sentence ; but I never intended to say that it did not kill green-fly ; all that I stated was that it was a dirty and nasty smelling thing. G. W. suggests that possibly the water I used was strongly impregnated with lime or some other salts, and that I ought to have used soft water. I used water that had been exposed to the sun for some days, and which, though originally *hard*, had acquired by that sufficient softness. I did not allow it long to settle down (as is suggested by a letter which has been received from a very experienced gardener, who states that he finds it answer ; and encloses two leaves to bear out his view of it, which leaves he said had been dipped *six* times) ; therefore, I must only suppose that I have not followed out the directions fully, while at the same time I most decidedly decline to repeat the experiment. I say nothing whatever as to its merits for Roses, or thick-leaved plants ; it may suit them ; my only objection lies on the score of its use for Pelargoniums. I should be sorry if the assertion I made was to be considered as arising from a spirit of fault finding ; and therefore, in self justification, would add that I see in a recent advertisement of another composition, that a very large nurseryman, in a certificate which he gives as to the merits of the new one, objects to the strong smell of Gishurst ; and also that I have, since receiving G. W.'s letter, made enquiries of the largest and most successful growers of Pelargoniums, both public and amateur, and that I do not find that they use it, seeing that tobacco or tobacco paper suits their purposes much better. I hope that these remarks may set the matter right.

Deal.

D.

"HOME AGAIN."

HOME again, from the third Grand National Rose Show—so tired, and yet too happy, too excited for any beds save those in my Rose garden. As some young girl, returning from her first Court Ball (and am I not just arrived from a "Palace," and from the presence of the Queen of Flowers?), forgets her weariness, and cannot rest until she has "talked it over" with some sympathetic friend ; or, as an earnest hunter who has ridden bravely in some trying run, and come home twenty miles in rain and darkness, defies all drowsiness, that he may tell his friends how muffs were pounded and how fields were won—and goes gaily, with his cigar in his mouth, to take a last fond look at his steeds, grinding away at their suppers upon beds of clean white straw ; so I, coming home with a thousand pleasant thoughts and memories.

must go to my Roses and commune with them—go to my Roses, with my Silver Cup in my hand, and tell them of our common victory.

And yet *so* tired! Tired with racing up and down my Rose beds in the anxious process of cutting for the show, roving for ever from flower to flower like the butterfly of tuneful memory, but with the addition of Rose scissors in one hand, a glorious bloom in the other, and a second between my lips, lovingly osculating; and lo, just as I reach my exhibition boxes, I remember a third flower, of the same kind as those I have brought, and of surpassing merit, and, I need hardly say, at the most distant part of my rosarium. Tired, so tired, with writing out correct lists of all my running horses; with going up to dress for a journey just when one usually undresses for sleep; with shooting over 120 miles of rail between midnight and daybreak (I wonder what that Roman Emperor, who made such a fuss about losing a day, would have said if he had lost a *night*), and speculating the while how my pets were travelling in the capacious van behind (“van behind,” I remember to have murmured sleepingly, “how can *the van* be behind?”); with rattling over London stones when London virtuous was all abed, and little thinking that through her streets the *Emperor Napoleon*, with *Anna de Diesbach* on one side and *Madame Vidot* on the other, were riding on the roof of a cab! with sitting on my Rose boxes outside the station at London Bridge, contemplating St. Paul’s, and fancying how the dome would look well covered with blooms of “the Cloth of Gold;” with carrying my Roses up the steep and steps of Sydenham (“John”—well *not* “Anderson—we’ve climbed the hill together,” and I thank thee, and those two other helpmates, who brought me with a Deal of generous sympathy from the Slough of my great despair); with arranging, altering, consulting, suggesting, “staging”—tired, *so* tired!

Wearied from eye to foot, but too happy to surrender to fatigue. The eye shows an inclination to connect itself with the Early Closing Association, the foot longs to go “bootless home” to rest, and the limbs join in the chorus, when “to-bed, to-bed, says Sleepy Head;” but the heart derides the idea of somnulence with so much mirthful scorn that the rest of the company become quite ashamed of their lassitude, prepare themselves to be cupped instead of being couched, and express their general readiness to make a night of it.

And we make a night of it accordingly, and thus. We fill our Silver Goblet (we had hoped for another, in letter F, yea after we had seen our opponent’s forces drawn out in battle array; but “there’s many a slip,” you know, and it never reached our labial regions), we fill our pretty goblet with the sparkling waters of Schweppe, corrected with Cogniac, for the nights are chill; and we take our seat in our favourite arbour, all the Roses blushing around, just as those pretty girls at the Rose show stood blushing round us when we gave away our flowers—that was, indeed, “love among the Roses,” and I almost wept when the last was given, and my heart was carried off by those special pleaders in about thirty-four different directions—and we light our cigar, and think.

Thankful and pleasant thoughts. It is scarcely more than three

years since he who thinks them suggested in the pages of the *Florist* a Grand National Rose Show, and thrice he has seen his heart's hope realized. He remembers all the genial aid and sympathy which were so promptly and so freely given when he began to verify his plan; the kind words of encouragement which came from him to whom first he referred for counsel, the "Guide" from whom he learned to be a "Rose amateur," and now the valued friend; the brotherly co-operation which he at once received from a younger writer on the Rose, whose zeal and thoughtfulness never flagged; the hearty help tendered by the *Florist*; the generous subscriptions promised both by growers for sale and amateurs, many of whom volunteered to act as collectors from their friends; and all this kindness to a stranger *because he loved the Rose*. From almost every county, from York to Devon; from Castle, Hall, Rectory, Grange, and Villa; from Scotland, Falkirk to *wit*; from Ireland, over the swate bay of Dublin, and from Glasnevin's gardens; came friendly fraternal words. The Shamrock and the Thistle sent their love to their sweet sister Rose, and

"Bid her come forth,
Suffer herself to be desired,
And not blush so
To be admired."

All this he remembers thankfully. Then he recalls the eventful morning of the first exhibition; his troublesome surmise, what if from my ignorance and inexperience all should be a failure; the support and courage which he gained from one, who, the general of a hundred floral fights, helped him in the Hall of St. James as up the Hill of Sydenham; the happiness which he felt when he saw the Roses arranged in their beauty; and the final and financial triumph, when the British public crowded up the stairs, and he knew that the first National Rose Show had deserved success and won it. And "'t was merry in the Hall," my brothers, and your Rose-loving hearts beat high with mine, when those cups of silver, thirty and six of them, were distributed among us, that we might raise them high, brimful, and oft, pledging right loyally our Royal Mistress, and shouting mirthfully, "*Floreat Regina Florum*," and "*Vive la Reine des Fleurs!*"

Here I refresh myself with Schweppe, and then, recurring to the Pleasures of Memory, I think of our second rosy réunion, which we held in the House of Hanover (Square); of the grand improvement we made by the introduction of Roses in pots, whereby we constructed such banks and thrones of beauty as would have charmed Titania's heart; again I behold the auspicious advent of the Queen's lieges, and pity them, packed like figs, and deafened by our excellent, but too potent, band; and, surveying their sad condensation from above, resolve that in our next place of rendezvous there shall be room for all.

So my reflections bring me to that last happy day at Sydenham, when north, south, east and west sent up such an exposition of Roses as eye hath not seen since Eden; and more than sixteen thousand persons of every grade, from the Duchess of Sutherland (God bless her, and keep her, like her roseate synonyme, a "perpetual bloomer!") downwards, rejoiced in the sunlit scene.

Knights of the Rose, receive my congratulations, and upon two successes especially! In the first place the National Rose show has become, as we who organised it always desired that it should become, *self-supporting*. There will be no further need to tax the generosity of those who gave, and (a still truer proof of earnestness) induced others to give, so freely.* Not only have we a balance at our Banksiaæ—I beg your pardon, I mean Bank—but rival candidates aspire to the distinction of paying our future expenses.

And let us congratulate each other, heartily, for I come now to speak the happiest thought of all, that our meetings become more evidently, year after year, of a social, friendly character. Some few malcontents, whose hearts, like their Roses, are not very large, have been pleased to call us “a clique:” we call ourselves a Brotherhood. And every year, unless my eye-glass is very ‘rose-coloured’ indeed, we become more brotherly—each of us, of course, solicitous for his own success, but, having done his best to win it, obedient to bear defeat. Our censors have been accused of bias, not openly, not manfully, but in an under-hand, indirect way, to persons unconcerned. Cowards are not worth kicking, and I will therefore content myself with saying that if any prejudice had been shown, “S. R. H.” must have had a slice of it. Whether this has been so, let those who saw my 24 in 1858, and my 12 in 1860, declare. Either of these collections *might have been* placed first, without a dozen words of criticism, but the Judges preferred others, and their law at once was mine.

And it is so with the generality of us. We look upon “the National” as our “Derby.” It is glorious to win; it is greatness to be ‘placed;’ it is honourable to run well at all. It is our Tournament. We cannot all be victors, but we can all be men. Don’t let us lie whining in the dust, and groaning “Oh, he has so hurt me.” “A fresh steed and a new lance,” be our cry; “and look to thyself, Sir Knight, when next thou and I shall meet.” Did any one see the brave Chief of Cheshunt sulking in a corner of the Alhambra Court, when the Knight of Sussex, successful, was declared to be “the hero of a hundred” blooms? Did Sir Cranston call upon the Great Waterworks to drown his despairing soul? Did the Prior of Caversham excommunicate the Priest of Caunton for preceding him in “the 48s?” Not precisely. They went to the Refreshment-tables instead, and, lunching amicably side by side, drank to “our next merry meeting,” inaudibly adding, “at which I mean to win.”

Now, following the example of Alphonse Karr—did you see his very pretty namesake among Mr. Mallett’s Roses?—and having made a small “*Voyage autour de mon Jardin*,” I must go to roost.

How lovely are the Roses in the soft light of eventide! They have regained the firmness of petal, the brightness of colour, which they had lost awhile beneath the summer sun, and, with their rosy faces washed with dew, seem to rest, rejoicing, in the cool tranquillity of the

* I must be permitted to mention, very gratefully, Messrs. Rivers, Paul, Turner, Cranston, the Revs. W. F. Radclyffe, G. E. Maunsell, and A. Rawson; Mr. C. M. Worthington, Capt. Borlase Tibbits, Mr. H. O. Nethercote, Mr. R. Garnett, &c.

declining day. *General Jacqueminot* and the *Geant* fold their martial cloaks around them, as though preparing for sleep; but awake or nodding, erect or pendent, cupped or expanded, all are beautiful. Most beautiful, as though flushed with victory, those who have been distinguished at "the National." The old favourites seem to exult that they are not wholly superseded, and the Belles, more recently introduced, to pride themselves on their first conquests, and to foresee new victories. I take off my hat to them, young and old, wishing them "bon repos," and, after happy morrows, peaceful rest in the Pot-Pourri jar.

Parentally, on my way to bed, I must take a peep at the Nursery, and say good night to the young ones. Good night to Master *Eugene Appert*, at rest upon his noble leaves. He has not attained to the size desiderated, but his complexion is glorious, and until some novelty shall surpass him in shape and circumference no Rose garden can be complete without him. This season has not been so favourable to him as the last, but few Roses have attracted more attention on the tree, especially from the brighter eyes and rosier lips of our kind. Good night to *Anna de Diesbach*, the largest Rose I have seen this summer; to the two Franks, *Francois Premier*, so vivid in colouring and so compact in form, and *Francois Arago*, of rich claret hue—and to those who, with me, think much of contrasts, most valuable for exhibition; to *Armide*, circular and cheerful, well shown by Messrs. Fraser at the National; to *Homere*, a very pretty promising *Tea*—"aliquando bonus dormitat Homerus," and now *I* begin to nod; and so a last good night to the beautiful *Comtesse Cecile de Chabrillant* (let us call her *the Countess*, my brothers, since life really is too short, and our tallies also, for these etymological excesses), of whom I need say little, seeing that Mr. Andrews, pitying my sleepiness, has bravely ventured "to paint the Rose," and her sweet Ladyship is now before you. When I first beheld her, escorted by a Knight of the Bath division, Mr. Tiley, to the Hanover Square Rooms, I tendered admiration and allegiance—

"When first I saw thy face, I resolved
To honour and renown thee."

And I have seen her subsequently only to confirm my love. Ample as fair (I blush for some of our fraternity, who persist in describing Duchesses, Countesses, Mesdames, and even Mesdemoiselles, as "robust" and "full"), of perfect symmetry and very "constant," she takes a place at once by the throne of our Queen of Flowers, and will be the Beauty of many a "Drawing-room," the Belle of many a Box.—Good night!

S. R. H.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—If our previous directions have been attended to, the stock of *Azaleas* will be cleared of their seed pods, their shoots properly tied and thinned out, &c., and the plants placed in a

favourable situation for inducing them to make a free, strong, and vigorous growth. But if any of the specimens have hitherto been neglected, these should be attended to at once, especially in the case of plants which have not started freely into growth after blooming; and these should, if possible, be placed in a rather warm house, and be afforded every necessary care to induce free growth—for plants that are at all weakly, if left much longer in a cool dry house or out of doors, will require extra care later in the season, otherwise they will not bloom finely next year. Specimens which have formed their bloom buds should be removed to a shady situation out of doors, but young plants which it may be desirable to increase in size as fast as possible may, if they seem inclined to set for bloom, be stopped regularly over, and encouraged to make a second growth. Camellias which have formed their bloom buds should either be placed out of doors or be kept in a rather cool dry house, so as to prevent their making a second growth, which young vigorous plants are apt to do if kept in a close moist atmosphere after having formed their flower buds. Any of the specimens which may be in want of more pot room should be attended to at once.

Conservatory.—The principal display here at present will probably be produced by plants brought from the stove, and, if so, the house must be kept rather close, giving air sparingly against such things as are likely to be injured by currents of dry air. But where Camellias and other greenhouse hard-wooded things are planted in the borders, it will be advisable to be satisfied, while flowers are plentiful in the open garden, with such a show of bloom as can be obtained from such things as will bear the treatment most suitable for the permanent occupants of the house, rather than to injure these for the sake of an extra show at this season, when in-door flowers are perhaps less valued than at another period of the year. Make the most of all variegated and other ornamental foliaged plants which will bear the temperature of this house, by arranging them tastefully amongst the things in bloom; and such plants as Crotons, Marantas, Dracænas, &c., &c., will, with moderate care, do very well here while the weather is warm, and will greatly assist in producing variety and effect. See that everything in the house is perfectly free from insects, and give twiners and other plants growing in the borders a liberal supply of water at the root. Also attend to keeping the young growths of the twiners nicely regulated, going over them frequently for this purpose, and avoid anything like a too close or formal method of training. *Cold Frames.*—Look over and attend to last month's directions as to the treatment of tender things here, and afford these every care, in order to induce them to make a free strong growth in time to allow of the young wood getting moderately matured before winter. Young specimens of Pimeleas, Chorozeas, Epacrises, and other strong-growing things, which may have been kept rather close, to induce them to break freely after having been cut back, should, as soon as they have made a moderate growth, be exposed to a freer circulation of air, removing the glass at night whenever this can be done without the risk of their balls getting saturated by rain, so as to prevent their making too long or weakly growths. Examine Ericas and other things subject to mildew frequently, and apply sulphur

immediately this pest is perceived. If not already done, sow herbaceous Calceolarias at once, and prick out into pans those sown last month as soon as they will bear handling. Also look carefully after the stock of Cinerarias, keeping them perfectly clear of aphids, and get suckers potted off or cuttings rooted as early as possible. *Flower Garden.*—

Use every possible effort to secure perfect neatness in every department here—keeping the shoots of Verbenas and other free-growing things nicely regulated as they advance in growth, and removing decaying blooms directly they are perceived to be unsightly; and while the bedding plants are in full beauty carefully note any errors of arrangement, and prepare to avoid them next season. Autumn blooming Roses will be greatly benefited by a liberal supply of manure water, especially if the weather should prove warm and dry, and these will repay any attention which can be afforded them. Proceed as speedily as convenient with the propagation of bedding-out stock generally, recollecting that strong well-established plants are not nearly so troublesome to winter as late-rooted ill-prepared plants. *Greenhouse.*—Proceed with repotting any of the specimens which require more pot room, commencing with such as have fairly started into growth after having been cut back. Be very careful to properly supply them with water until the roots get hold of the fresh soil, for excess of either wet or dry would be certain to greatly injure the plant. Strong-growing things which may already have made a moderate growth should be exposed to a very free circulation of air, or removed to where they can be exposed to more sunshine, in order to keep the young wood short and stocky. Examine all plants liable to mildew and spider frequently, and apply the proper remedies immediately they are required. Such plants as *Erica elegans*, *E. depressa*, *E. Cavendishii*, and other spring blooming kinds which flower but sparingly unless their wood is well matured, should, as soon as they have made sufficient growth, be freely exposed to the sun; but this should be done gradually, and the pots must be shaded, and *Epacris* and many other free-growing plants will be benefited by similar treatment.

Hardy Fruit.—Continue to thin and nail in the young shoots of all wall trees, and while this is being done, examine the trees, and see that no nails come in contact with the fruit. Syringe occasionally in dry weather, to keep down red spider; trap earwigs in Peach trees; this may easily be done by placing short pieces of Bean-stalk or other hollow stems in different parts of the trees, look them over two or three times a week, blow the contents into a bottle and replace the stalks as before. Layer Strawberries for making new plantations, and when they are well rooted plant them out as soon as possible. When the crop of this fruit is over, clear the plants of all runners, and fork over the beds; this will encourage growth, and prepare them for another season. Thin the young canes of Raspberries, and as soon as the crop is gathered the old wood should be cut out. Protect Gooseberry and Currant bushes with mats or canvas for use late in the season; indeed, all fruit intended for this purpose should be protected from birds and wasps as soon as it is ripe. *Forcing Ground.*—The present season being so unfavourable to the growth of Cucumbers in the open air, renders it

important that more than the usual attention should be given to those under glass at this season of the year; therefore the linings should be renewed, to maintain a steady bottom heat. Stop and thin the shoots, so that they do not get matted together; top dress with rich soil those that have been some time in bearing; water freely and close the frames early in the afternoon; plant out those sown last month, and sow more towards the end of this month, for the winter supply. Keep the plants hardy by giving plenty of air. Lord Kenyon's Cucumber is a good kind. Melons require plenty of air and moisture while the fruit is swelling, and in hot weather the sashes may be drawn off altogether through the day with advantage. Keep the plants free from all useless growth; when the fruit approaches maturity less moisture is needed. If woodlice are troublesome in the frames, it is a good plan to place the fruit on bricks over a shallow pan of water. *Pines*.—All plants intended for fruiting next summer should be shifted during this month, using free turfy loam, such as water will pass readily through, and not become soddened. Pot crowns and suckers for succession, and repot the young stock as they may require it. Liquid manure should be given occasionally, especially to those plants in fruit. Give plenty of water to those planted out on ridges, and encourage growth by keeping a moist atmosphere. Close the pits at about 90°, and use the syringe to all except where the fruit is approaching maturity. *Peach-house*.—After the crop is gathered, all useless shoots should be cut out, the trees washed, and the borders inside the house watered, if dry. If the weather is warm, the sashes may be removed, *i. e.*, if the trees have finished their growth and the wood well matured. *Strawberries*.—Pot for early forcing, and place them in a situation fully exposed to air and light. Continue to layer runners in small pots, to follow in succession. The Keens' Seedling is among the best for *early* forcing. Ingram's Prince Arthur and Sir C. Napier are excellent bearers for successional crops. *Vinery*.—Look over ripe Grapes and remove all decayed or unhealthy berries; keep the house well aired and free from moisture. Maintain a moist growing temperature in the late houses; if mildew appear, dust sulphur over the fruit and shoots, which may afterwards be washed off without injury to the fruit; but we find the best *preventive* of this parasitical pest is heat and moisture regularly maintained from the time the fruit is set till it begins to ripen. Encourage the growth of Vines in pots by frequent waterings with strong liquid manure; stop them as soon as they are the desired length, and cut out all lateral shoots as the wood ripens. When the crop is cleared from the early Vineries, the wood ripe, and the leaves beginning to decay, the sashes may be removed altogether. *Kitchen Garden*.—Continue to earth up early Celery as it advances in growth; the late crops will require copious waterings should the weather become dry. Make the principal sowing of Cabbage early in the month, and plant out those sown last month for Coleworts. The Vanack and Mitchell's Matchless are among the best for this sowing. Brown Cos and hardy Cabbage Lettuces should be sown at the end of the month for spring use, and prepare a rich piece of ground in a sheltered situation, and plant out those sown last month. If the season is not too severe they will be

very useful through the early part of the winter. Sow Tripoli Onions about the middle of the month; also Prickly Spinach for winter and spring use. Finish planting Broccoli and all winter Greens without further delay. Mulch and water the late crops of Peas, if the weather becomes hot and dry. Sow Chervil, American Cress, and Parsley in a sheltered situation; it is a good plan to make a sowing under trees, which will be a slight protection through the winter. Sow Turnips the second week and a little Early Dutch at the end of the month. Sow Early Horn Carrot the first week in the month, to remain in the ground for winter use. Cut herbs, if not already done, and keep the hoe moving among all growing crops.

FLORISTS' FLOWERS.

Auriculas.—The task of repotting must be completed early in the month (I have already spoken of the compost, see July No. of *Florist*). Probably some experiments will be made as to the size of the pots, whether using larger ones will give stronger plants; but generally speaking southern growers do not use any above six inches. Use plenty of drainage and coarse compost, and some pieces of charcoal over it. The plants should be carefully examined; some shake off all the earth, others leave a portion on. Some kinds, such as Waterhouse's Conqueror, Beeston's Apollo, and others, continually throw offsets; the small eyes had better be rubbed off, unless increase is much wanted. The root fibres should be carefully laid round, and the potting be tolerably tight. It is well to make separate lists of blooming plants and offsets, so that the true state of the stock may be seen. I advised last year that they should be watered by standing in a tub on top of another pot; but I am rather disposed to omit this, as I fear it sours the roots sometimes.

Carnations and Picotees.—A very late bloom this year. At one time they looked very badly, but now they are very much improved, and promise well. Let everything be ready for the blooming—cards, awnings, &c.; tie the swelling pods with a piece of bast, to prevent bursting, and place cards on—the *card* ought not to press on the pod. Few amateurs increase their stock by pipings, but as the layer becomes hardy go on with it; use loam, leaf-mould, and sand, or road sweepings, for a compost; it is needless to describe the process.

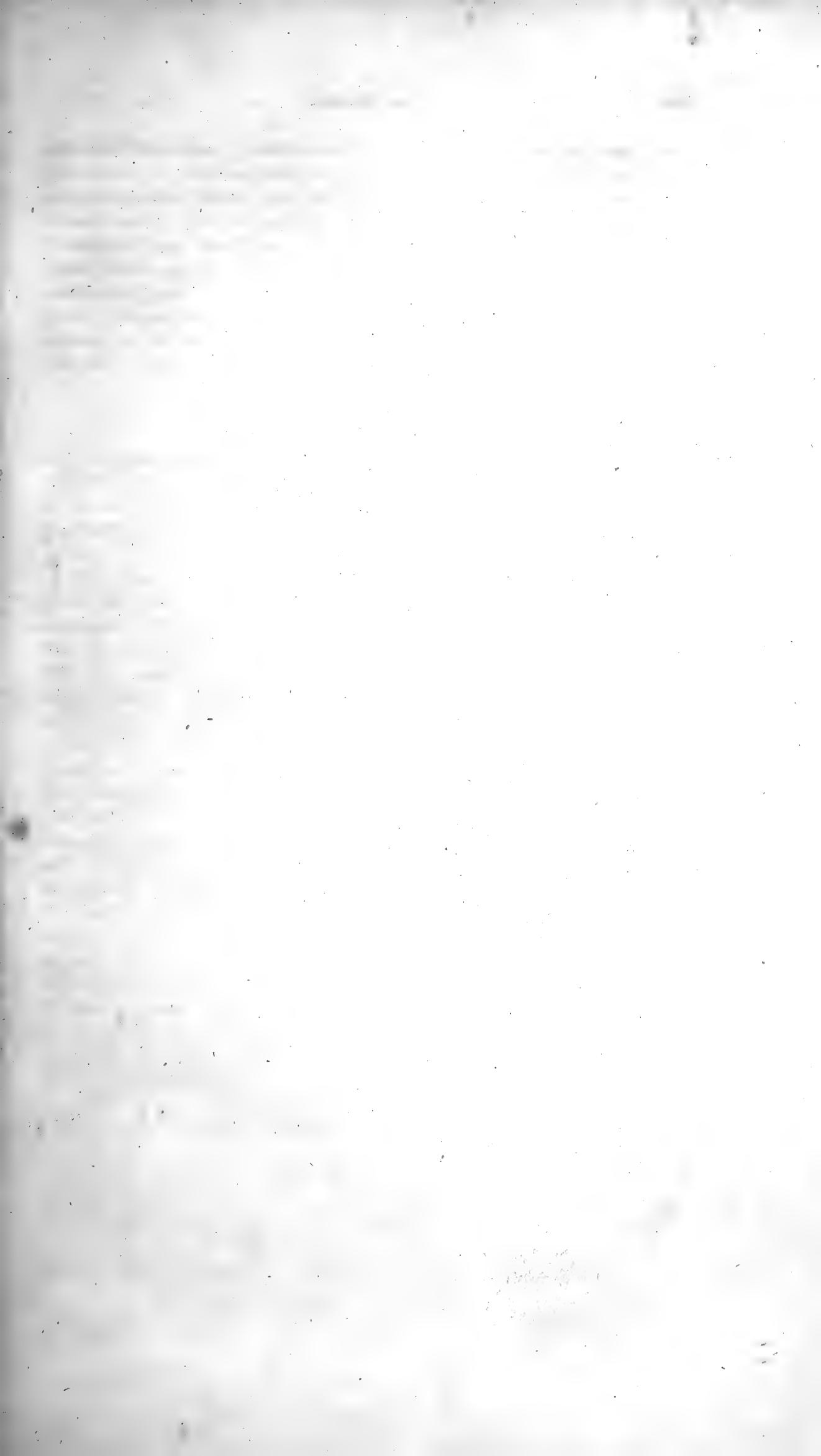
Dahlias.—Put in side stakes, and tie out and secure the branches to them. Remove all buds that do not promise well, and do not allow the plant to be robbed by small side branches, which will be of no profit for blooming.

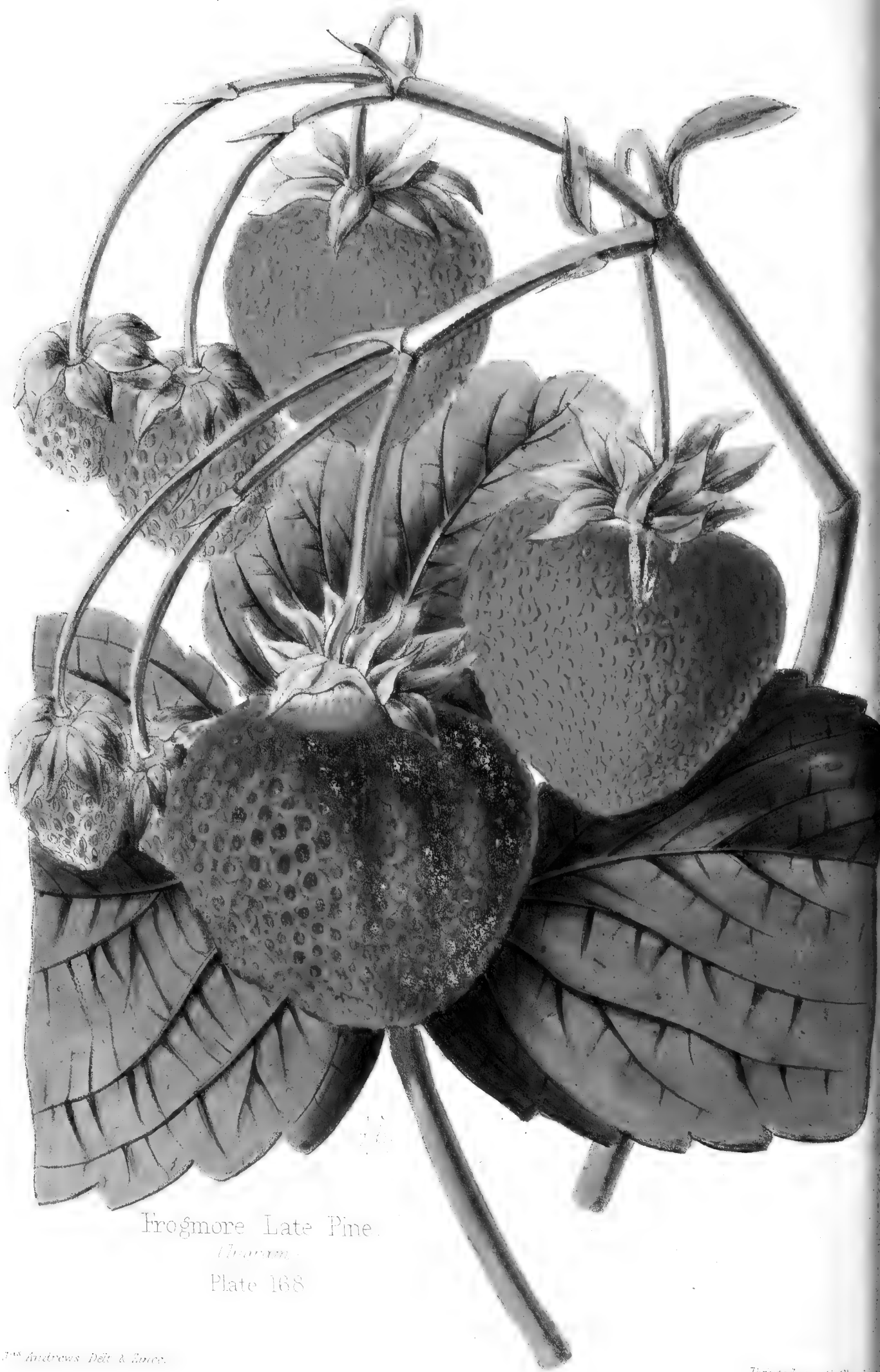
Pelargoniums.—Compost should be prepared now, as at the end of the month it will be required; about two-thirds good loam, one-third old cow dung, and enough silver sand to keep it open, is an excellent mixture. Do not overpot; and when done put into a close frame, and give for a few days careful attention to watering, and they will soon be established.

Pinks.—Pipings will now be rooting; remove the glasses, and then, when sufficiently established, move them out into store beds. Those who have space may also now prepare their beds for next year's bloom. There are some noble flowers to come out this autumn.

Deal, July 19.

, D.





Frogmore Late Pine.

Chatham.

Plate 168

FROGMORE LATE PINE STRAWBERRY.

(PLATE 168.)

THE appearance of either an early or late variety of fruit is always welcomed with pleasure, and in no class is a good late kind so much needed as it is among Strawberries. At present, there are many late varieties in cultivation, of which the Elton Pine and Crimson Queen are, doubtless, among the best; but still the quality of their fruit is not equal to Strawberries of the middle season. The Frogmore Late Pine is a superior late kind, and we select it for illustration from Mr. Ingram's splendid batch of seedlings which have been exhibited during the present season. As will be seen by our plate, the fruit is of the first size, and on the whole the berries vary but slightly in form, the majority being conical, and a few at times wedge-shaped. The fruit is of a fine deep colour and is highly polished, the seeds being but slightly imbedded. Altogether it is a very handsome fruit. The flesh is solid but not stringy, juicy, rich, and highly flavoured, and it will bear carriage well. As this variety ripens later than other kinds, it will doubtless prove a very desirable acquisition.

The plants are of exceedingly strong and healthy habit, partaking much of that of the Filbert Pine, having been raised from seeds of that fine variety, the other parent being the British Queen. In short, it may be said to be a combination of the two—only with this difference, that it is much later than either. When we visited Frogmore, the middle of last month, the plants at that time were in full bearing, while the crop of Elton Pine growing on the same aspect was all gathered; this is, we think, a sufficient guarantee of its lateness.

This variety affords another proof of how desirable it is for all lovers of fruit culture to persevere in raising seedlings, and as the Strawberry is the most eligible among fruits for cross breeding, we hope at some future time to have the opportunity of recording in our pages the merits of a still later variety. The aim in view should be to raise a Strawberry later than any known kind, and equal in flavour to the British Queen.

WINTER CUCUMBERS.

To grow Cucumbers successfully through the winter is no mean specimen of gardening skill. It used to be considered a qualification of primary importance in a gardener's character that he could cut Cucumbers in March. If he could do so in February his merits were beyond questioning. At that time the mode was laborious, the care required something extraordinary, and the result oftentimes uncertain;

for, although the best of Cucumbers are obtained from dung frames from April to September, it is a most difficult and troublesome matter to keep them in a healthy growing state from December to March. The great superiority of hot water as a medium of heating forcing houses is in no instance so apparent as in its application to Cucumber growing. The ease with which any amount of either top or bottom heat can be obtained, and the power which the grower of Cucumbers by hot water possesses of diminishing or increasing the moisture of the air in his house or pit, is a great element of success in growing plants like the Cucumber, which luxuriates in an atmosphere loaded with moisture and supplied with a moist uniform bottom heat.

For winter forcing, to cut from November to March, the seed should now be sown in single pots, plunged in a slight bottom heat, close to the glass. As they advance in size, transplant into 32's or 24's, keeping them in a night temperature of about 65° to 68° , with plenty of air daily. The great secret is to get the plants strong and hardy; and for this purpose give air freely every fine day, and let the plants be near the glass. In about a month's time, they will be ready to transfer to the fruiting house, having in the meantime been carefully trained to an upright stick without stopping the main shoot. The best pits for winter fruiting are those with a tolerable sharp pitch, to admit as much light as possible through the winter months. The house may be either a span-roof one or the ordinary lean-to. It should not be too much exposed to rough winds, that air may be given on all favourable occasions without damage to the plants, and it should have ample means of heating, to maintain a temperature of not less than 70° in any weather. A low-span roof, with sharp pitch (see above) running north and south, with a path down the middle, and a pit about three feet wide on each side supplied with pipes for bottom heat, is about as good a structure as can be built for Cucumbers. If the pit should happen to stand east and west, then keep the south side for winter fruiting, and the north for a successional crop.

The pipes for bottom heat may either be chambered over or covered with rough stones, through which the heat will be distributed and warm the border above. A pipe must also run round the pit, furnished with troughs, for supplying moisture at pleasure. The bottom heat should not be less than 90° when the plants are growing freely, but for the present, after planting, 80° will be ample, until the days get shorter and colder, when the bottom heat must be gradually raised to 90° , at which point it should be steadily kept through the winter. The bed of soil for the plants to grow in need not be more than 20 inches deep, and placed at first in separate hillocks, to which the plants should be transferred from their pots next month. Rich turfy loam, mixed with a little peat, is the best compost for them. If the loam is heavy, mix a little old mortar rubbish with it. A wire trellis, 20 or 24 inches from the glass, should be fixed for training the plants on as they grow, and to which, in the first place, they must be led direct from the hillock without stopping. When they have grown two or three joints long on the trellis, pinch out the end of the shoot, when they will push three or

four lateral shoots, which must be trained at regular distances apart for fruiting. I do not wish my plants to bear before they have nearly covered the trellis, by which time they are furnished with good healthy leaves and an abundance of roots. I have omitted to mention that when the roots protrude from the hillocks in which they were first planted, the space between them should be filled up with a similar compost to that in which they were planted. This bed will serve the plants for the season, but may be helped by surfacing an inch or two deep at a time when the soil becomes exhausted, adding a little rich dung to the loam. By getting the plants strong before the dark days, they always resist the unfavourable weather of winter, produce more fruit, and keep a much longer time in bearing than when fruited young and before they become well established. I keep my night temperature at 68° or 70° all through the winter, giving at the same time air more or less on every opportunity. Strong soot water, or liquid guano, both of them in a clear state, are given towards the end of the year, as the plants begin to show symptoms of exhaustion; and I find that it has a good effect to wash over their foliage with clear soot or guano water occasionally. It is not desirable to allow the plants too much room—a space of from eight to ten square feet of trellis will be large enough for one plant to cover. Great care is necessary to keep a regular supply of young Vines, to produce fruit in succession, and also not to allow the plants to be overcropped, or they will soon become stunted and cease bearing altogether. From 8 to 12 inches in length is quite sufficient for winter, or indeed for any season, Cucumber; and never allow the fruit to become old, for when the seeds commence forming they tax the plant much more severely than at an earlier stage. I need not name sorts, as every grower has his own favourite. Cuthill's Black Spine, Wood's Black Spine, Berkshire Champion, and Turner's Favourite, I have found the best of the spine varieties, and are all good forcing kinds; and Lord Kenyon's Favourite and Improved Syon House are the best of that class. Mildew is kept down by dusting the infested leaves over with dry sulphur on a fine day, and black-fly must be attacked with the fumigating bellows immediately it is seen. One hint more—never destroy a healthy leaf, nor cut the shoots with a knife, but use your thumb and finger; and, above all, never check your plants by diminishing or greatly increasing your heat suddenly.

S. D. R.

LETTERS FROM PARIS.

I hope to start for Dijon to-morrow and the next day for Paris. I like to become acquainted with those grand provincial towns of which L. N. may be more proud than of Paris that he has done more for, and what he has done will pay better, especially at Marseilles and Lyons; indeed, the city is already hardly second to any, and when the tens of thousands of Plane trees, Acacias, and Sycamores have a few years' growth the promenades will be unrivalled. The care bestowed on planting those young trees merits notice; they are trained in the

forests, the stems up to twenty feet kept clean and bound by close straw ropes, the shoots at the top pruned well, the roots are laid in good soil, and will be kept well watered until there is no doubt about their pushing. The matrix on which those trees are planted is a bed of coarse gravel, and the soil is poor, yet all this is provided for. The Oriental Plane trees planted three years ago on the banks of the Rhone afford a most agreeable shade, and carriages drive beneath them.

I went to the botanic garden, which includes a zoological garden and I know not what besides—too much, for it cannot be kept nice, and therefore fails to please you. Nearly all public gardens except those at Kew seem to be in a state of infancy, transition, or decay; Kew is always perfect, regal, and something to boast of. When L. N. said eight years ago to my friend N., “We will have something superior to Kew,” the young diplomatist was silent, and he declares, if I had put the thought into his head at the proper time, he would have said to the Emperor, “Sire, God makes trees! To destroy trees that have lived a thousand years, each year adding value to their fruit and grandeur to their stature is a great crime, as the mercenary troops did at Perugia. Fig trees, Olives, and Mulberries are now used for fire-wood, the produce of which was the patrimony of families, to say nothing of the loss to the city or the scenery once so extolled and now so disturbed.”

Fifty acres must be included in the boundary of the botanic garden, which in fact is no boundary at all. You drive in, out, and everywhere without let or hindrance, and without payment in any shape being demanded. There are impotent efforts at effect in large oval spaces out of grass, which is kept half mown. Some of these huge ovals were filled with blue *Nemophilas* others with *Verbenas*; but they are lost, the wild flowers laugh at them, when suffered to make a little head, and to lift up their blossoms amidst the grass. As to lawn, it is quite in vain to covet what cannot be had; all looks tawdry, like the flowers one sees on May-day, when Jack-in-the-Green exhibits the used-up favourites of the ball-room. There is not force of men, depth of soil, or a succession of plants to keep parterres gay. Let them fill their ovals and parallelograms with low shrubs and be content with a small portion of well-kept garden and exotics, and encourage the growth of all large timber trees and ornamental shrubs, and the place would be attractive. I have taken a good deal of trouble to demonstrate all this to a person who has influence here, and who sees what ought to be done.

Near my hotel, in a street as public as Cheapside, and nearly as great a thoroughfare, there is a morsel of Nature so purely satisfactory, and such a refreshment, that I heartily wish every city in Europe had such an oasis; and those green spots might be obtained at a slight cost, if there can be brought to bear upon it the sincere earnestness which enabled a citizen to place this lovely gem in the very heart of Lyons. There are four compartments in each division of a strip of ground cut from the centre of the street. A fountain is the conspicuous object; it is merely of stone, a mere tazza, but of good proportions, and grand, both in the column of water it throws up, and from the basin into which it falls. The beds of flowers are merely purple Candytuft, and the variety of the small *Antirrhinum* which in all but colour resembles the

yellow or rather straw-coloured one with orange blotch, masses of which would mate with any exotic. The grass from which those simple shapes are cut is green as any in the world—so vivid, indeed, and so smooth that I thought the new sort of “moss” had been grown; but no, it is a model of perfect turf, kept in this fine order by the zeal of a shopkeeper. In the centre of each ring there are Magnolias, and on the ridges Indian Shot, Canna indivisa, and the other plants Hydrangea and congeners, Pæonies Moutans and the rose-coloured, Salvias, and Petunias. The whole looks as if just refreshed by a shower, and I suppose that in reality to keep this verdure many sprinklings are daily administered.

There is a wedding kept here to-day, a very grand one—thirty carriages and twelve bridesmaids; the flowers called Marguerette are in much request; single they are so like our large white field Daisy, or Moon-flowers as children call them, that one is surprised at their novel and charming effect, when surrounded by Violets; the plant in pots is on the landings, and forms a very handsome bush; it really is a Chrysanthemum, the very simplest of all, and seems capable of producing flowers, under management, at all seasons. *The table dresser*, a person kept for that sole purpose, told me that he found it quite impossible to dispense with artificials; he only used natural foliage, but a few full blown white and red Roses always brightened up his designs. The fruit that forms the dessert, and is placed with flowers on the table from the beginning receives great consideration; it is served on silver dishes, and most tastefully margined.

A few days after the present ruler of France made his triumphal entry into Paris, on his return from the provinces, we saw the Emperor—President at that time—very early in the morning walking in the gardens of the Tuileries, and leaning on the arm of his aide-de-camp. He was pointing with the scabbard of his sword to one of the marble statues in the gardens, which workmen had been for some weeks past clearing of stains, and removing the cryptogamic plants which had disfigured them more or less. Curiosity led myself and friend to examine the statue, which had engaged the President's attention so earnestly, and I observed that the Lichens and Mosses which had become established between the feet and straps of the sandals of the figure had not been entirely cleared away. In the course of the day we saw workmen with delicate tools remove the parasitical plants and leave the beautiful statue in its pristine state. This keen eye for detail and prompt attention to order in all matters which come beneath his notice is quite characteristic of the Emperor, and added to the refined taste which he possesses, has led to the rapid and wonderful improvements which have marked the French metropolis since his Majesty's accession to the throne, and in which garden embellishments have shared so largely, that Paris has now no equal in these respects. Louis Napoleon had his education at Kew during his exile in England, and was thus made familiar with the workings of that most regal of royal gardens. If you offered a premium for weeds or withered leaves from the Palace gardens they could not be found. Every morning

gangs of six gardeners each with a tall basket which is adapted for fitting to the back, and held on by straps across the arms, examine every inch of border, keep the Ivy flat and the turf smooth as velvet. Each workman is also provided with a tripod to sit upon, like the milking-stools used in our cow-sheds, cushions to kneel upon, and all sorts of tools are contained in those capacious baskets, into which every fragment of pruning is put, and all looks so tidy that it is pleasant to see. Then gardeners in their clean white shirts and blue blouses, not exactly in uniform, yet all well clad. After them the waterers follow; pipes are laid on to a main, and by flexible tubes they give every plant just sufficient moisture. Each plant is planted in a little hollow, and I observed that when new plants are introduced the hole is puddled, that is, filled with water and stirred about and beaten until it is like the batter of which Yorkshire puddings are made; into this medium the naked roots are inserted, the surface covered with dry earth well pressed down; this is the general custom in India. Plants under a fiercer sun, and in the driest season, are thus transplanted, and take root. Pansies, especially the yellow and light-coloured ones, are extensively employed in the parterres. Pink Phlox on a border two yards wide and 500 yards long had a very handsome effect; the turquoise blue *Nemophila* and the yellow Cress also told well. Some very large beds of scarlet *Geraniums* are one blaze of colour, a thick base of dark green leaves adding to the effect. All the plants that fill the geometric designs are kept very low. In front of the Louvre the space enclosed by rails from the public road is not more than fifty yards; I remember when nothing was seen there but rubbish, and after that, when some attempt was made to grow Grass there, all was very untidy, now it is the perfection of order and beauty. A broad stone bench close to the base of the Louvre is occupied all day long by nurserymaids, children, veterans, and idlers of all sorts; the children play on the gravel walk which is kept perfectly clean, and beyond are the borders of flowers. The flat ivy; one does not like to see a plant meant by nature to climb creeping thus, yet so well is the plant adapted to the purpose that it would be unwise to object to that or the Clematis, which so admirably unites the shrubs to the Grass, and makes a graceful flowing outline.

The Orange trees are later this year by six weeks than usual, the coldness of the spring has been a surprise to the Parisians; nothing like it can be remembered, and the fear about the Grapes is quite a panic. There has been no good wine for the last two years, because of the Vine disease, and now if the Grapes do not ripen it will be quite a shock to the revenue.

Four years ago the Jardin des Plantes was looking very seedy. The Emperor gave his patronage to the Bois de Boulogne, and especially to the Society whose scheme was to acclimatise plants, quadrupeds, birds, and fishes; how far success has attended the efforts of the Society is not made known to the public, all the proceedings are kept secret; the painful circumstances connected with the awful death of the late director—our friend David Mitchell—may have had some tendency to retard operations. Many scientific men whose opinions I like have come to a conclusion on the subject of naturalisation. I

remember hearing Sir William Hooker say that nature had given to plants a certain vitality which frost could not destroy, to other plants organisation to which frost was death. The artificial condition in which you may place any living thing may keep it alive for a certain time, or so long as you keep it within the boundary of such a temperature in its extreme limit as belongs to the habitat of the plant. The Olive trees of Italy and France mark the exact state of the thermometer in its natural range. In sheltered spots a few Olive and Orange trees grow in localities the temperature of which falls below zero—occasionally, perhaps once in seven years, and then but for a short period; it is, however, for ornamental purposes that such plants are grown, the natives know how fruitless it would be to contest the boundary fixed by the Creator. For many years (“ages ago”) we can all remember plants nursed in stoves which now flourish in the garden, and forget that the mistake was to regard all exotics as tender and suffocate them in ignorance of the plant and of the country from which it had been obtained. China has always been our great store-house; even since the discovery of South America our most valuable acquisitions are from the East. Mr. Fortune has done more to enrich our gardens and ensure a succession of the charming selection of plants made during his travels for England than all previous collectors.

The Jardin des Plantes was founded in 1635, and is entitled to reverence, not only because of Buffon, Cuvier, and other eminent naturalists who gave their services to this noble establishment, but as the parent of all the zoological and natural history societies in which one branch or kingdom can be compared and illustrate others. The museum of comparative anatomy is said to be the richest in existence, and is indebted to the unwearied exertions of Baron Cuvier, by whom it was arranged, and under whose direction most of the objects were prepared. The mineralogical museum is unique; the specimens are arranged in two rooms each 540 feet long, 40 feet wide, and 30 feet high. The admirable order, the wealth of precious metals in all states, gems also in every condition, renders the museum eminently instructive and attractive.

Under the care of my friend Herr Louis Neumann, who was educated at Kew and speaks English elegantly, as he does French and German, the garden has been wonderfully improved; with a good eye for colour and form, he has made groups of plants so attractive, that crowds linger round them with delight, who would have felt no pleasure in the old formal arrangement. Pæonies make a bed so gay that Roses, which are very fine, seemed dwarfed by comparison; the rose-coloured, the white, and the dark red Pæony in a mass are really grand. The Hydrangea also makes a goodly show, when you have fifty plants in one mass. The *Oenothera* makes a gay bed, and the Iris a very attractive one. The strictly botanical part of the garden cannot be made ornamental; plants flower at different times and must remain in order, so that there are always great ugly gaps in the square beds which science demands, rejecting all ornamentation. A capital arrangement facilitates the student's labour, that he may know the nature of the plants by the colour of the tickets; the red denotes medicinal, the green

alimentary plants, the blue those used in the arts, the yellow ornamental, and the black poisonous plants.

The Cedar of Lebanon planted on an artificial mound has grown considerably since I had last seen it four years ago; the superficial roots, which had been nearly worn through by the feet of multitudes who ascend the eminence to get a view of Paris, were covered, and other protection given to this Cedar, by an English physician (Collinson) in 1734; it was planted by the elder Jussieu.

The amphitheatre will hold 1200 persons, the lectures are numerous and gratuitous; last year upwards of 2000 students attended these lectures.

A botanic garden cannot be made ornamental; classification renders it imperative to observe order without reference to effect. Plants in juxtaposition flower at different periods, hence there must always be gaps or blanks during the interregnum. In the Jardin des Plantes Monsieur Louis Neumann has done all that is possible to incorporate the rigidly botanical department with beds of brilliant flowers in masses so grand that the most obtuse spectator gazes in wonder at the tropical glow of all bright hues, blended in beds of Pæonies, Hydrangeas, Poppies, Salvias, Marigolds, Petunias, Convolvuli, and many other gay and free-flowering plants, in quantity that arrests attention and leaves on the mind an impression which, like certain strains of music, cling lovingly to our memory, like cherished recollections.

Colour is a source of delight which we do not recognise so distinctly as we do the sweet sounds of music or perfect form in sculpture; yet colour is in a manifold degree a more potent agent in all that we designate as beautiful. Discords in colour are quite as disturbing to the eye as discords in sound are to the ear; there are rules for avoiding these errors. A right appreciation of what is beautiful and true does not depend on scientific rules—rules which it is honourable to learn and important to study, yet let the unlearned take courage; consider what arrangement is most agreeable, try experiments, and that correct taste which will influence all beholders will be his reward.

The Hotel de Cluny and its precious contents have long been a great attraction to strangers; it is now rendered eminently so, even less for its valuable collection of middle-age rarities than for its choice garden. Four years ago the ground now planted with tall trees, and rich in brilliant flowers, was a mere rubbish depot—a place of refuse for sculptured stones that proved too heavy for the interior—or mutilated statues, unsuitable for a saloon, but most admirably adapted to the decoration of a museum in the open air, for such we may properly designate the garden of the Hotel Cluny. Willows, all the varieties of Cypress, and Acacias, have been most skilfully combined with historical fragments of old religious houses or churches which have gone to decay or have been swept from the face of the earth by that clearance which like a ploughshare is driven in direct lines, letting light and air into districts of Paris which have hitherto been gloomy, obscure, and unhealthy. Such is the newly purged Boulevard de Sebastopol, which when finished will be one of the finest streets in Europe.

In the garden of the Hotel de Cluny Acanthus and every variety of

the picturesque Thistle tribe are growing near the fragments of Roman and Greek sculpture which have been discovered in France. The herb Basil, and all those plants which in mediæval times had mystic significance, are judiciously planted near such remnants of gothic sculpture to which they bear resemblance. In England many showy flowers are rejected as common—Marigolds and Daisies for example; the deep orange tints of the Marigold, the facility of growing it in the poorest soil, and the certainty of a long succession of flowers, renders them too important in France to admit of their exclusion as too common for the most highly dressed gardens. The Virginian Stock is a prime resource for covering any bare spots; by successively sowing seeds a bright effect is ensured from very early spring to autumn.

The Chapelle Expiatoire in the Rue d'Anjou St. Honore was, until the Emperor recently ordered the removal of all obstructions, nearly inaccessible. The elegant chapel is now open, and the avenues leading to the spot in which, after the execution of the unfortunate Louis XVI. and his Queen their bodies were obscurely buried, are gracefully planted with immortelles, bordered with ivy laid flat and flanked with a double row of Cypresses. Comparing the burial-grounds of England with those of France or any other country, we acknowledge our disadvantage, with some striking exceptions, such as the Bath Cemeteries of Lyncombe and Lansdowne afford. We cannot endorse the sentimentality of our continental friends, but we might guard against the bleak ugliness of those ostentatious enclosures which, with duplicate chapels of singular ugliness, offend us from John o'Groats to Land's-end. It seems as if there could be no repose for the dead in such exposed, naked, unlovely, ill-chosen localities. No trees, no flowers, no shrubs; stone stone or brick brick, and the bare earth, on which even grass refuses to grow. We also pass mansions recently erected and called Elizabethan, a great sturdy house with an affectation of gable, buttress, and every sort of make-believe irregularity, pleasant enough in a really old house, when you see the reason for adding room—pantry to pantry, and breaking out windows regardless of symmetry, because of the need there was for air and light; to imitate all this instead of avoiding the necessity for such make-shifts and contrivances, is surely folly; and to build such houses remote from all that sort of scenery which is needfully characteristic is bad taste; we require rookeries, old hawthorns for the blackbirds to build in, and all the adjuncts so endeared to us by old association. If it is insisted upon to have houses built in 1860 like those of a past century, and a locality is not to be commanded in which there are fine old trees, let us make the best of it, and imitate our neighbours in France; let large trees be removed, no matter from what distance, and give to the modern edifice a vicinity somewhat in keeping, and not attempt that mockery of a garden and pleasure grounds which it will require two or three generations to establish. We have seen that all this can be done with perfect success, and ought not to grudge the labour and cost of making the grounds and the mansion consistent.

The idea of extemporising a forest did not originate with the French. Sir Henry Stewart many years ago removed with success full-grown forest trees, and gave to parks and pleasure grounds which had hitherto

been devoid of ornamentation a richly diversified aspect. Our continental neighbours have improved upon all our plans for removing and replanting large trees, and more especially they have made a careful study of the requirements of trees under the condition, and have so well provided for the demands of nature, that whatever they do in the way of transplanting becomes a success.*

C. E.

EDUCATION OF GARDENERS.

THE education of gardeners has been so prominently brought before the public of late by your contemporaries that I must ask you to find me room for my opinion on this important question in your periodical—a favour I feel you will not refuse, after having very ably mooted the subject some time ago. In the first place, as to the propriety of head gardeners taking premiums of their young men for instruction, that, like all other questions of labour, will always be regulated by the supply. If there is at any time a number of young men wishing to make gardening their profession, they will not object paying the requisite premium to some head gardener, to enable them to learn their business. If, on the contrary, gardeners find the market for assistants or apprentices restricted, they will be compelled to take men without paying fees; for, it is obvious, having themselves a certain quantity of work to get through requiring such men, they must have them, and in that case are not in a position to demand what they have no power to enforce. As to the rights of gardeners to take fees, that depends simply on the arrangements they make with their employers as to this privilege.

You have already shown that the prospects of gardeners having a much wider range of objects to attain than mere gardening is increasing every year—a fact which I affirm, and which indeed is the principal reason for my addressing you. But then I wish also to impress on the minds of your young readers that a thorough practical knowledge of horticulture forms the groundwork of a number of duties which they may hereafter be called upon to fulfil, more especially that part of it which relates to the practical management of the soil and draining. So impressed am I with the value of the knowledge of garden management of crops as applicable to field husbandry, that I feel certain were young farmers to spend a couple of years in some of the market gardens round London, to witness the effects of deep trenching, manuring, and their rotation of crops, it would be equally as serviceable to them as a term at the agricultural colleges—perhaps more so, with this exception that the market gardeners deal with one kind of manure only (horse-dung), and that their land is for the most part of one description, only modified by local circumstances (the London clay).

Young men wishing to make themselves gardeners, with the prospects of hereafter taking charge of landed property, should bear in

* Our readers will find the operation noticed at length at page 274 of our vol. for 1858.

mind that they will have to prove themselves thorough gardeners before any other charge is given to them. If a man does not succeed in his own profession it is quite unlikely he will be entrusted with others, and therefore he must make himself practically acquainted with all the details of cultivation, both of exotics and hardy plants. He should also know practically British plants, as these latter have more to do with the nature and properties of soils than many people imagine; and country gentlemen are much interested in all that pertains to country life, and appreciate this knowledge in others. It is also a point on which, generally speaking, land agents are deficient in. Next come more difficult subjects to master, vegetable physiology, agricultural (or land) chemistry, and geology. A judicious course of reading will do a great deal by way of impressing the elements of these sciences on the mind of an intelligent young man, but no opportunity should be lost of conversing with men acquainted with these subjects, attending lectures, and making practical experiments, either alone or conjointly with others. Book learning is all very well, but *alone* it will never make a man either a geologist or physiologist any more than it will make him a gardener or a steward. Vegetable physiology will prove of the greatest use to all engaged in cultivation, whether such includes forest trees, or farm or garden products, explaining as it does the laws of growth and reproduction, in the same way as the chemistry of agriculture indicates the constituents of soils and plants, and the means of supplying the fertilising properties to soil abstracted by plants under cultivation; while geology having reference to the nature and disposition of soils and rocks will teach the general arrangement and composition of the surface soils, with which gardeners and farmers have only to deal. I do not mention arithmetic, land surveying, mapping, drawing plans, and book-keeping, as they are now taught in all schools; and, with the exception of land surveying, are more easily taught from books than those mentioned above. But a certain amount of knowledge is necessary in most of the above, more especially in arithmetic and book-keeping, as furnishing the key to measuring work of all kinds and the correct keeping of accounts.

I find I shall only have space allowed me to allude to two or three other items demanding the attention of young gardeners, and one is to study, whenever the opportunity presents itself, all works relating to the tenures and conditions on which land is held, and the details of estate management, such as farm buildings, road making and draining. A great deal in those departments may be learnt by young gardeners connected with landed estates if they would only keep their eyes and ears open to what is going on.

As regards the double duties of gardener and steward, there is, besides all the above, much that a gardener would have to learn before becoming a proficient bailiff or steward; for, although his education as a gardener has given him many advantages very rarely possessed by men brought up as land stewards, he will find himself deficient in all matters relating to a knowledge of stock, and consequently his judgment at first will not be sufficient to enable him to buy and sell on his own responsibility without great circumspection. To be a good judge of stock requires an

amount of knowledge which takes long years and much practice to attain, and after all much of it is intuitive and cannot be taught. But a young gardener when he has time may learn something in this line also. "Where there is a will there is a way!" He may visit a farmer's herd; and, while studying the difference between a Hereford and Short-horn may note the peculiarities of each, and carry them in his mind to compare them with other cattle. When once the distinctive features of any particular breed of cattle are impressed on the memory, the educational part of the enquiry may be said to have commenced, and will never afterwards be forgotten, but progress by each subsequent examination. Young gardeners may give young farmers advice on many points as to gardening, which I know they would be glad to receive; and, on the other hand, gardeners may most usefully spend a few hours in each week in noticing and comparing the qualities of live stock, so as in time to become acquainted with the different points which constitute perfection.

A GARDENER AND FARMER.

VISITS TO NURSERIES.

No. I.—MR. CANT'S, COLCHESTER.

ONE sometimes meets with a testy old colonel or superannuated civilian, who, with heavy tiffins, late dinners, pale ale, and Madeira, has managed to bring home with him from India a pretty considerable congested liver, which does not by any means tend to his amiability or bright views of things. He vents his grumbling and his bile on the service which has treated him so badly, or the authorities at home, who have not seen his transcendant merits. You ask such a man about missionaries. "Missionaries, Sir, I never set my face on one the whole time I was in India—a parcel of humbugs, Sir. I saw a bungalow of one of them once, and a pretty snug box it was. The man himself was off somewhere. I suppose taking his pleasure up in the hills; and, as to converts, all a bundle of lies—not one of them in India." Well now—some set this down as most irrational, and call the poor man all sorts of hard names; but what else can you expect? The very last thing he would care to make enquiries about was missionary work, and hence he sees nothing. He does not suppose a missionary ought to live in a pig-stye; and the poor man, whom he supposed to be upon the hills, was probably at that time wearing out health and strength in arduous itinerating work amongst the heathen towns and villages of his district. I often think of this when one goes into a provincial town. Ask a dozen persons who have been to Colchester, to wit, what they think of its floricultural productions—never saw anything of the kind. One man has seen its old ruins, another has eaten its oysters, another has visited the large camp, but as to flowers do not believe they are grown there. One says,—I saw indeed one or two nurserymen's windows, nothing very particular there, and think you would only waste your

time in looking for any. Shall one call him a muff if he expresses surprise when you tell him that Colchester is a *famous* place for flowers? Certainly not—he has no taste for it—no desire to know; and, like our testy old colonel, he looks on it all as moonshine and nonsense. I knew that there was something to see there, and so a day or two after the Grand National Rose Show, having business of another kind there, I shot the two birds at once, and paid a visit, not only to Mr. Cant's, but to Dr. Maclean. It is of the former I desire to write now, for one must have felt interested to see the locality of the very fine collection of Roses he exhibited at the Crystal Palace show. Like many provincial nurserymen, Mr. Cant has a nursery attached to his residence, and another at some distance out of the town. At the latter, of course, the Roses are grown; and it is for Roses that Mr. Cant is specially famous, or for which, as our neighbours say, he has a "*specialité*." In the home nursery, he cultivates a general nursery stock, and has a large collection of Roses in pots. I was particularly struck, on entering the garden, with a beautiful bed of *Rhodanthe Manglesii*, such a one as indeed I have never seen before. The sun was very bright, not a very usual circumstance this cold and wet season. The flowers were fully expanded, and nothing could look more beautiful than it did. Mr. Cant is a very careful collector of seeds, and both here and in his larger grounds patches of many colours of considerable extent showed the care with which he selected them. He has also a fine collection of fruit trees and shrubs, which seem to thrive very well; and nothing could be neater and more cleanly than the manner in which the whole establishment was kept; and this is a great charm in our English nurseries, the manner in which everything is arranged; and war made on the weeds, which choke the land and make it unfruitful. Half the pleasure of looking at a garden is spoiled by untidiness. Who could gaze much on a beauty if she had a dirty face or unkempt hair? But it is to see the Roses I am specially come, Mr. Cant; and so, chaperoned by a little boy, who gave me an interesting history of his widowed mother and himself *en passant*, I found myself at last at the Rose nursery, which is situated in a somewhat open valley, with a brook running at the bottom of it; and the lie of the valley is towards the south east, and consequently is not very sheltered. The soil is an excellent one for Roses, being a good stiff loam; and the vigorous growth of many kinds, which one looks on as of weak habit, clearly proved how well it agreed with them. But I was quite surprised that Mr. Cant should have cut such a quantity of bloom from his stock while he had another fine crop of flowers coming on for the show which was to be held in a few days in the Floral Hall. Care in selection, knowledge of the kinds required for exhibition, and good growth, could alone have secured this result. Here I saw most of the older kinds in fine condition—while the newer ones, such as Monsieur de Montigny, Comtesse Cecile de Chabillant, Lord Palmerston, Duke of Cambridge, &c., were opening fresh blooms.

I was very much surprised to see the vigour with which Eveque de Nîmes was growing; with me, and in other places where I have seen it, its habit was peculiarly delicate, but here it was fine and strong.

Duke of Cambridge struck me as a very beautiful flower of the Prince Leon type, but of a more vigorous habit, and likely, I think, to be an acquisition. Of new Roses Mr. Cant is a considerable cultivator, though, like all who have to do with the French raisers, he had to deplore the constant disappointments they create. Every year brings out a list of new and superior flowers, which are characterised all as grande, magnifique, superbe, &c., &c. Now, in some flowers, this creates a little vexation, but no more, *e.g.*, Verbenas. You may get over 40 or 50; all you have to do is to plant, grow, and then weed out the rubbish, and all this is done the same season. Not so with Roses; you pay—(there's the rub)—as Mr. Cant told me he did £23 for new Roses; you must immediately set to work to bud, graft, and grow them; you do it to all indiscriminately, for you cannot tell where the beauties are, or which is the rubbish; you have so worked the plants that you get very little bloom to judge correctly by, and it is not until the second year that you can really tell their virtues or their faults, and then perhaps you have to throw away half as rubbish. I saw one called Solomon, fine and showy in foliage, yet never opens its flowers, and so passes into the condemned cell. Mr. Cant has kindly given me some interesting information on the subject of some of the new Roses, which perhaps may be interesting.

ALEXANDRE BRETON, a large full beautifully-formed lively red shaded with crimson, petals large, and reminds one very much of H.P. General Jacqueminot, but not of that colour—it is, however, more double and perfect; this is first rate.

VICTOIRE DE MAGENTA.—This I think will turn out first rate; flowers large and full, of a beautiful dark purplish red shaded with scarlet and violet; it resembles Madame Masson—is richer in colour and better in shape.

TRIOMPHE DE LYON, large flowers of the darkest velvety crimson and purple; it will be, I think, a distinct Rose; it is a good grower, free bloomer, excellent form, and very double.

PRINCESS IMPERIAL CLOTHILDE promises to beat Virginal as a white H.P., but only one bloom has opened.

VICTOR VERDIER is worth having, if only to look at its foliage and buds; it is a splendid grower, and the foliage grand; the flower is a large vivid Rose a good deal like Jules Margottin.

BOURBON, VICTOR EMMANUEL, I like the best of all the dark Bourbon Roses.

TEA, DUC DE MAGENTA, a large full well-formed flower, lively copper rose colour, very sweet, opens well, and appears altogether a nice addition to the Tea Roses.

MADAME BLACHET, large and full, bright rose colour.

RUBENS, large, globular, and full; white delicately tinted with rose, the centre salmon; a very nice flower.

I hear besides Le Royal Epoux, Louis XIV., Madame Boll, and Mademoiselle Bonnaire, well spoken of.

I regretted much that time did not permit me to visit Mr. Cant's brother, where those glorious blooms of Cloth of Gold were grown which attracted so much attention at the National Rose Show. The tree was,

I was told, then full of its magnificent blooms, and that Mr. Cant was ready in any year to show 100 blooms of it against all comers. Hear you that Miss Isabella Gray, and blush if you can blush?

On the whole, I thoroughly enjoyed my visit; and that is saying something when Roses were the *lions*, and when one had had such a feast of them at the Crystal Palace; and I felt sure that Mr. Cant was one of those cultivators who is rapidly bringing the Rose into such widespread favour. May all such flourish!

Deal, Aug. 21.

D.

STRAWBERRIES.

WITH seventy sorts of Strawberries, I naturally expected to be able to say something grand, but "man appoints, and God disappoints." Such a winter, spring, and summer, I never remember to have occurred. From October till the 27th of June there was either frost, hoar frost, wind, rain, snow, or hail sleets, and even now (the 8th of August) the weather is cold, wet, and Octobral. This being so, and as sun is the contract of the word sugar, little can be said of high flavour. I shall, therefore, speak of Strawberries in reference to those qualities which the weather has permitted them to present to me. Those that did not, under such disastrous circumstances, come up to my expectations I shall reserve for future trial and description.

The best foreign Strawberries are the Hautbois Belle Bordelaise and La Reine (Belgian); they are both hardy, good, sure croppers, and of excellent flavour. I think that another year I shall be able to speak favourably of Latour Maubourg and Excellente, good winterers and good croppers. Of the new English Strawberries, Oscar and Wonderful are the best. Oscar is a beautiful first-class plant with foliage like the Bicton Pine; its berry is perfectly solid, and the plant is hardy. I have increased it. The weather was most unfavourable for tasting it, but I think that it will give great satisfaction. Wonderful is a fine strong plant, heavy cropper, and of good flavour; its berries are conical, and like, but larger, than La Reine and Sir W. Scott. Wizard is a pretty plant, like in foliage to Sir W. Scott, but stronger; the foliage is correctly represented in the portrait; its fruit is medium sized, round, and numerous. The weather hindered me from detecting its true flavour. Princess Frederick William is a strong plant; its fruit is large and early. May Queen is hardy, and a great cropper. She was three weeks earlier than any other. She came in in incessant wet weather, and I cannot tell what her flavour is. She is valuable as first early. A seedling sent to me by Mr. Nicholson, marked W. but not named, will do him great credit. The plant is vigorous, and the flavour fine. Mr. Ingram and I will give it a "testamur." The Scarlet Pine is decidedly of first quality and flavour; it is like the Rival Queen; the plant is more vigorous. The red and white bush Alpines are worth their weight in gold; they crop well all the year. The old white Alpine is also very valuable. I use it for rockwork, according to the suggestion of the late Mr. George McEwen, whose little treatise

should be in all hands. Salter's Jucunda is a fine hardy plant; the foliage is in the way of Trollope's Victoria; it is a heavy cropper with large berries; it is late and yet sweet; the flavour is medium and pleasant, and it will suit those who think Eleanor and Elton Pine too acid. I see by Mr. Gloede's letter of to-day that it is his last sort grown under a north wall. He likewise complains of the weather. He says "the weather here is as wet and cold as in England, although there has been less rain during my absence than I had reason to expect from what we had at Rushton. Strawberries are, of course, over, except Salter's Jucunda, under a north wall, and a few Alpines."

To those who are commencing with Strawberries, I would venture to select and recommend the following:—First early, May Queen; second early, and as yet the richest and best, Black Prince. As this is often a shy setter, I would also recommend Princess Frederick William, which will be sure. Its flavour and quality I cannot tell. As the British Queen, Carolina superba, and Filbert Pine, three first-class Strawberries, can only be grown in very favourable soils and situations, I would recommend, to beginners, Nimrod, Hendries' Seedling, and Magnum Bonum; they are hardy, good croppers, and have a strong dash of the Queen's flavour. To veritable amateurs, I particularly commend Myatt's Pine-apple. These four have wintered well, and cropped well here. For general crop, I would recommend Trollope's Victoria above all; it never fails, and crops in detail. Alice Maude is a great, sure, and early cropper, but rather flat in flavour. Of the new Strawberries, Oscar and Wonderful you should have. I shall not be wrong, I think, in recommending these two, although the season for trial has been unfavourable. If to these be added Rivers' Eliza, Bicton Pine, Jucunda, Eleanor, or Elton Pine (hardest of all Strawberries), Belle Bordelaise, and the red and white bush Alpines, which may be used for edgings, instead of Box, I think my followers will not say that I have misdirected them. I have not named Keens' Seedling (very hardy) because unless the cultivation is exceedingly high it will not bring to size its numerous berries. Probably, if used by beginners, a bed form will be the best. I may add that I have tasted two very large berries of Eugenie, brought here by Mr. Gloede from the raiser, and that I thought it rich in flavour. I have seven small plants of it on trial.

In conclusion, the finest flavoured here have been Rivers' Eliza, a hardy plant and good cropper, Belle Bordelaise, and Bicton Pine—three Strawberries that I can recommend for one cause or other, to all growers, young or old. Rivers' Eliza and Nimrod (the true—sweet, not acid) probably are the best supply for the Queen in general situations.

Rushton, August 8.

W. F. RADCLYFFE.

NOTES ON THE MONTH.

THE watery atmosphere of the present summer has tinged our country with gloom and sadness. Rain has followed rain in quick succession, and, with the exception of about fourteen days early in July, there has not been two consecutive dry days since the middle of May. We are old enough to remember the wet season of 1816, when the "lodged" corn sprouted and grew into a green-tangled mass before it could be cut, and when our loaves were like a compound of half-baked rye bread mixed with treacle. Thanks to free trade; such a state of things could be altered now, but at what an expense? and even now the privations of the poor, this coming winter, will be great unless a favourable autumn crowns the year with joy and gladness.

The season has been a disastrous one for the farmer, with half his hay crop spoilt, with his land overrun with weeds, with but few if any Swedes, and only a moderate crop of Turnips, owing to the impossibility of clearing land in time. The prospects of the coming winter are by no means cheering. Stock keep must be a scarce article, and the uncertainty of the weather for harvesting Corn makes all feel a desponding gloom. Let us hope, however, for the best.

In the garden, matters, though not on the same scale of importance, look serious enough. The incessant rain has saturated the soil far beyond any former precedent in late years. All our exotic fruit trees are suffering. Peach walls, in many places, are naked, excepting green tufts of foliage under the coping of the walls. Apricots do not ripen, but crack and fall off. Plums and Cherries have been smothered with blight. Funguses and Cryptogamic plants are covering every leaf, closing the pores, and affording a nidus for insects. Pears and Apples, though abundant, do not swell freely, bearing evidence to the want of solar light. Grapes which never shrank before shank now, and rather astonish some confident gardeners; and the mischief already incurred will take some seasons of favourable weather to overcome. Plants which delight in a moist climate show, however, that they approve of the weather. American plants, *Arbutus* and some other similar shrubs, are making an extraordinary growth. Oak woods have all the appearance of May, the trees being profusely covered with secondary shoots. What effect will this have on the quality of timber? Our answer is that it will increase the sap wood considerably, and that the solid matter added to the timber this season will be small.

Let us turn from general questions to local ones, and ask what is going to be done with the Pomological Society, which appears hopelessly in debt just as we thought it had established itself as a public institution? What do you answer me Mr. Editor?

G. F.

[The Pomological Society, as our correspondent remarks, is in debt simply because the executive of that body have for reasons best known to themselves broken one of the fundamental rules which the Society adopted when first established, that of not giving money prizes, but commendatory cards only, to articles exhibited before them. This error, added to others of less importance, but indicating a lax system of management, has led to their present state, for which, however, we

are in no ways answerable. When the fruit committee of the Horticultural Society was established, our advice to the Pomological Society was to dissolve and associate itself with that body. It could then have done so, gracefully and creditably, having been the means of calling that committee into existence; this the Council then declined to do, and what they will do now is not for us to say. Those who have brought on the present state of affairs must answer for themselves.—*Ed. Florist and Fruitist*].

KENSINGTON GORE AND CHISWICK.

A GOOD deal of the earthwork belonging to the new garden at Kensington Gore is removed, and the compartments and panels for the centre division brought to their proper levels, so that the embroidery work of the principal figures may be commenced, and the walks prepared for their gravel, of which there is a great abundance of excellent quality on the ground—another fortunate hit for the Society. The garden offices, which are large and commodious, are already roofed in; these face the entrance from the Exhibition-road, and will front, on the garden side, the lower division adjoining the site being reserved for exhibitions. The contractor has also commenced the arcades which are to surround the gardens, and which, judging from the drawings, will be most ornamental in character. Altogether, Mr. Eyles has made the most of his time in forwarding all the heavy earthwork, so as to prepare for planting when the season arrives, and must have made great exertions to get so much already completed within the time.

At Chiswick the experimental grounds have been very interesting this season, from the number of subjects undergoing trials, on the recommendations of the Floral and Fruit Committees, which I need not notice further, as the Society's reports will shortly be published, with full particulars. In the great metal conservatory, which two or three years ago was planted with Vines, there is already a magnificent crop of Grapes now ripe, and as the Vines have already covered the roof, we may expect next year the finest show of Grapes in the kingdom. Peaches on walls, though feeling the effects of the late season, are by no means so bad as many we have seen. Pears and Apples are a fine crop.

THE AURICULA BLOOM OF 1860.

How many are the scrapes an absent man, or a man with a bad memory, gets himself into. "What did you mean, Sir, by passing my wife in the street the other day? I suppose you don't think she is good enough for your acquaintance?" "Why really, my friend, I did not see her." "Don't tell me, Sir; you looked her straight in the face." "Alas, I was deep in thought, and so I stand accused of being no gentleman." "I thought, Sir, you had promised to call upon me again shortly, and some time has elapsed. Is that the way you take care of your parish?" "Alas! my poor memory; for your sake I am accused of being an unfaithful shepherd." "But why don't you

keep a memorandum book?" "My brother, I do, but I forget to look at the memorandum book, and am forced now, to the infinite disgust of the laundress, to tie knots in the corner of my mouchoir, that I may recollect." Ah! I wish I had done that, when my valued friend, "Iota," wrote to me, saying he was making notes of Auriculas, and would let me have them for the *Florist*; but I did not, and consequently, my readers, you are deprived of them, and I can assure you it is a loss, if you love the Auricula as I do; and the only revenge "Iota," good fellow that he is, has taken for what I must own looked very much like a slight, is to fix me to a promise I wildly made some time ago, of giving a few notes on the bloom of this year—a very poor compensation for what you have lost, as you will see, if you turn to "Gossip."

When Mr. Headly proclaimed the Tulip to be hardier than a Swede, people thought him a little daft; but they are now beginning to see that he was not far out; and I fear some of the real good old particulars will be inclined to think me daft too, if I pronounce the Auricula to have been "more sinned against than sinning." In this I am borne out by the experience of last winter, one of the longest and most extraordinary we have had for years. After Auriculas were potted last August, we had some very hot forcing weather, and the consequence was, that there never was, perhaps, such an abundance of autumn blooms. Mr. Lightbody from the north; "A. J. C." from the west, Mr. Brock from the north-west, "Iota" from the east, and "D." from the south, all sang a very doleful ditty on this key. Mine, I remember, was especially so, and my only hope expressed was, that a mild autumn might enable them to recover lost ground; then came, as if to destroy all one's hopes, that awful frost in October—that killing frost, before which Roses, Laurels, Conifers, even the yellow Jasmine, fell victims; and there were the poor Auriculas, stopped in all their chance of growing any more. The curtain had now fallen, and for three months cold and wet alternated; when at last the time for top-dressing came, and I stood before my Auricula frame, I said, "Well, where you are to come from, to give me a bloom, I know not; all the leaves had, of course gone, and there was only left a little heart, which seemed as if it was nigh its last beat; then came a top-dressing, such as most flowers delight in, the Auricula especially, nearly all well rotted manure, and marvellous was the change in a few weeks. Plants that had bloomed took fresh heart, and ran away for growth; while those that had not, started away more vigorously still; and although I had to leave mine early in April for nearly three weeks, and consequently could not disbud as I should have done, yet I never had so fine a bloom or so good-looking a frame of plants. My stock is small, and I therefore am only speaking in a small way. Every one knows what a cold, ungenial spring it was, and that the weather could not well have been more unpropitious; and I therefore feel that the Auricula has probably suffered more from coddling than from its own inherent delicacy; at times plants will go off that seem to do so without any assignable cause, and at others that black rot makes its appearance, the plague of all Auricula growers; but whether this is not owing to mismanagement in some way seems a doubtful point. I saw Mr. Turner's collection

when just coming into bloom, and a most noble frame of plants they were; nothing could look finer than the foliage, and everything promised a first-rate bloom, and I was very sorry that no opportunity was afforded me of seeing them afterwards. His intelligent foreman, Mr. Ball, however, was good enough to send me a list of those that bloomed especially well, which I subjoin. In it Duke of Cambridge is classed under greys, I never saw it but as a green; and Fletcher's Mary Ann, which I have always seen as a grey, is classed among whites, another proof how these flowers vary.

GREEN.

Duke of Wellington
Prince Albert
Apollo (Hudson)
General Neill
Waterloo (Hogg)
Lord Palmerston

GREY.

Lancashire Hero
Ne plus Ultra
Richard Headly
Duke of Cambridge
Ringleader
Maria

WHITE.

Glory
Catherina
True Briton
Robert Burns
Bright Venus
Mary Ann

SELFS.

Meteor Flag
Volunteer
Mary Gray
Blackbird
Mrs. Sturrock
Metropolitan (Spalding)

The only exception I have heard to good blooming this season is Dr. Plant's. Now what I saw there I have told the readers of the *Florist*, and that did not seem to me a bad bloom. What he alludes to, I have no doubt is the fact, that he had found in some turf, that he had received from Wicklow, and used for his Auriculas, a large quantity of a grub which, before he detected its presence, had injured a great many of his plants, especially his Freedoms and Colonel Taylors. I took a few notes of mine, but the press of parochial business, consequent on an absence of three weeks, prevented my paying them the minute attention for this purpose I should have done, and hope, if God will it, to do another year. One thing is remarkable, though I believe it to be the same with all florists' flowers, how *some sorts* bloom one year so much better than others. I had some wonderful trusses of Waterhouse's Conqueror, many of the pips larger than a crown piece, while Fletcher's Ne plus Ultra did not all come up to the mark; then Oliver's Lovely Ann, which last year came a decided grey, was in every instance this year a pure green. These are some of the freaks that all florists' flowers play us sometimes. With regard to the scarcer kinds, Maclean's Unique was not so good as I have had it, and Richard Headly was small. George Lightbody, a very pure grey, something after Lancashire, I thought very good, a very solid paste, and a well formed well set flower; it is deficient in ground colour, but withal I regard it as one of the best grey-edged Auriculas grown. Chapman's Squire Smith (self), unless it improves, is only fit for the dunghill. With me it was a very bad Lord Primate, never a more true illustration of the "montes parturient," for it is a most ridiculously large and pretentious grower, while the flowers are small to a degree. Headly's Aurora, a pretty blue flower in the style of Metropolitan, has also the defect of being too small; Smith's Lycurgus, of which I saw a pip from "Iota," is a fine bold green edge, and if true to character a great acquisition; I

should describe it as a green Ne plus Ultra. Maria; how shall I describe her beauties? I fear, alas, that she with me put forth all her vigour for a last effort; for the plant now looks queer; but it was a grand bloom, the grey so decided, and the unapproachable colour of the ground so lovely. I do not wonder that Mr. Andrews did not succeed so happily as usual, for it is a most difficult flower to pourtray. Smith's Ne plus Ultra, white, was nothing very particular; and Gairns' Model, another white, with a lovely foliage, is far too small ever to be valuable. Campbell's Lord Palmerston would be good but for its watery eye; I do not mean that its lachrymal duct is out of order, but that the colour of the eye is of a dull green, a defect fatal to a first class flower. With regard to older flowers, I should place in order of excellence (for this season only), in greens, Colonel Taylor, Duke of Cambridge, Matilda (which threw itself above the foliage better than I have ever seen it), Lady Wilbraham, and Champion; in greys Maria, George Lightbody, Lancashire, Conqueror of Europe, Ne plus Ultra; in whites, Glory, Conqueror, Countess of Dunmore; in selfs, Hannibal, Blackbird, Metropolitan, Mrs. Sturrock, and Meteor Flag. With regard to the future, I have made, myself, an alteration as to the size of the pots, and have potted my stock into much larger ones than ever I used before; the sight of Dr. Plant's magnificent collection induced me to do this; of course at first the appearance is against the plan; there is so much pot-room that the plants are busily occupied in making roots, and do not throw so much vigour into the foliage, but I hope that when they have done this, they will be ready in spring to make a vigorous start; some would say let well alone, but I am fond of experiments, if there be any reasonable ground for going on, though not at all disposed to adopt the wise saws of every charlatan who fancies he knows a little of everything; and when one has such a proof of the result of it as the Monkstown collection, it seems to me to be tolerably safe ground to go upon; greater care will doubtless be needed that the plants do not get soddened, and all rains studiously kept from them, for the presence of damp seems to be the cause of most if not all the maladies of the Auricula. Moreover, I do not think that I shall keep my frames in the northern aspect that I did last year, but shall turn them to the west, where a wall at a few feet distance will, I hope, shield them from too much sun. Whether these alterations will benefit the plants or not time alone can tell. I last year gave a description of some of the sorts that had then bloomed well with me. In a sort of tabular arrangement, I now do the same with a few others. I must at the same time add that I cannot answer that this will be a true description of the flower under every circumstance, but only that it is, so far as mine are concerned. Locality, soil, method of management may all more or less influence them; and I think it would be very interesting if we could get blooms from the various growers, amateur and professional, to compare. I hope ere long this may be possible, for evidently the cultivation of them, and demand for them, is increasing, and the difficulties of distance and difference in climate may perhaps be got over; and I shall be glad if the efforts of "Iota" "O," myself and others to encourage florists to cultivate this flower are successful.

AURICULA BLOOM OF 1860.

NAME.	Eye.	Paste.	Ground.	Edge.	Size.	Habit.	Foliage.	GENERAL CHARACTER.
1. Summerscale's Catherine.	muddy	fair	brownish purple	white	large	good	mealy	A good second class flower.
2. Dixon's Lady Jane Grey	orange	good	maroon	whitish grey	medium	good	smooth	A fair flower.
3. Wilner's Squire Chilman	watery	starry	black	white	medium	good	mealy	Nothing particular.
4. Netherwood's Othello	yellow	circular	dark self	..	medium	good	smooth	A tall footstalk, and throws back the flowers too much.
5. Smith's Waterloo	pale yellow	starry	bright violet	pale green	large	good	smooth	
6. Dickson's Earl Stanhope	watery green	middling	bright violet	light green	large	good	smooth	Only to be kept for its ground colour, which is brilliant.
7. Fletcher's Mary Ann	yellow	not circular	brownish black	good grey	large	medium	smooth	
8. Hilton's Freeman	light yellow	circular	black	bright green	large	delicate	smooth	A good flower, not to be overpotted.
9. Sim's Eliza	pale yellow	circular	bright purple self	..	large	good	smooth	
10. Chapman's Squire Smith	orange	scolloped	brown self	..	small	strong	smooth	Not worth its pot room at present.
11. Heady's Conductor	orange	circular	maroon	light green	large	small	smooth	
12. Campbell's Lord Palmerston	watery	circular	maroon	bright green	large	medium	smooth	A good flower, spoiled by its eye.
13. Dickson's Prince Albert	pale	circular	maroon	grey and green	large	medium	smooth	
14. Smith's Ne Plus Ultra	pale	starry	blackish purple	white	large	good	mealy	Not equal to its name.
15. Falkner's Hannibal	orange	scolloped	dark maroon self	..	large	good	smooth	A fine exhibition flower.
16. Countess of Wilton	orange	circular	purple	greyish white	large	good	smooth	An ugly flower.
17. Lightbody's Juliana	orange	scolloped	black	green	large	good	smooth	A I.
18. Heady's George Lightbody	orange	circular	purple	decided grey	large	medium	smooth	Hardly any ground colour.
19. Morris Green Hero	orange	circular	purple	green	large	good	smooth	
20. Heady's Aurora	orange	circular	bright purplish-blue self	..	small	medium	smooth	

Deat, August 17.

D.

CRYSTAL PALACE AND LONDON GARDENS.

THE unfavourable nature of the season for flower gardens has been felt everywhere; and we noticed, the other day, on visiting London and the Crystal Palace, that the flower-beds did not present their usual brilliancy. The present wet and dull season, however, suggests many useful hints on flower-gardening which should not be lost sight of. Strange to say, *Tropæolum elegans*, or whatever it may be called, wore the brightest colour of any of the Crystal Palace beds; next in our estimation was a fine bed of the purple Nosegay, which was very conspicuous; *Sidonia*, an old shy-blooming variety, was this season flowering in perfection, as was also the variety called "conspicuum." These were much better in bloom than the scarlet kinds, which were growing too much to leaf. By the by, the Crystal Palace Scarlet, on which so much has been said in one of your contemporaries, is nothing more than *Perfection*, which itself is a synonym of *Attraction*, a variety found in nearly all good gardens, an excellent bedding variety, but I must yet prefer *Tom Thumb* for a low bed, and when planted on a suitable soil. There is nothing yet superior to *Tom* and *Brilliant*, for producing masses of colour; for taller beds, and vases, *Attraction* is grand and showy, as is also *Punch* for still larger beds.

There is less yellow than usual in the arrangement of colour, on the parallel beds on the upper terraces. I think this an improvement, when looking at the beds from a short distance, but from the wings or transept the long lines of yellow contrasted with a deep purple *Verbena*, in the way the beds were planted a year or two back, had a good effect. The long beds on the upper terrace have the Crystal Palace Scarlet *Geranium* for a centre, surrounded by *Purple King Verbena*, edged with *Flower of the Day Geranium*. By the way, how much better *Alma*, *Bijou*, or *Perfection* would be for this purpose; but we suppose they are not plentiful enough yet for all requirements. These long beds have a round bed between each, which was planted with the Crystal Palace or *Tom Thumb Nasturtium*. This to our mind is not a happy arrangement. I should have preferred an intense white with a bright blue edging, or blue with white edging, as contrasting better with the long beds.

The season has been greatly against *Verbenas* of all kinds, which have never grown away very freely, looked starved, and are sadly deficient in bloom. One great feature of our flower gardens, up to the present time, is therefore but half developed, and as this deficiency enters so largely into all modern flower garden arrangements of mixed beds, ribbon patterns, &c., the general appearance of all the gardens we have seen is dull, as compared with other seasons. With the exception of *Calceolarias* and a few other plants which seem to enjoy the cool season, such plants as *Lantanas*, *Mesembryanthemums*, *Gorterias*, *Petunias*, and *Cannas*, which require dry warm weather to bring them out, are altogether a failure; and unless we have a hot dry autumn, will remain so. By way of compensating the eye for this absence of colour, the freshness of the turf and luxuriant verdure of the trees and shrubs are delightful, and taken altogether we never saw the grounds

look so refreshing and enjoyable. The planting also begins to assume a more decided character, and give more expression to the place. The Deodara Firs on the approach walk to the building are growing vigorously, but the Araucarias have lost some of their lower branches, and indeed would be better placed elsewhere. I had almost forgotten to say that those interested in nursing up that veritable garden toy, the *Spergula*, may see a square patch near one of the principal walks, and judge for themselves as to the chance of this over-praised plant ever becoming a competitor with lawn Grass. The present weeping season has also had a most salutary influence on London squares and gardens, the trees and turf of which look fresher than we have seen them for years; their foliage has been washed by constant showers, which has kept them free from dust and chimney impurities, and has enabled them to perform their functions and retain their verdure unimpaired. This should teach those in charge of town squares and gardens that it would be possible to increase largely the number of plants which are now found in places of this description, by keeping the leaves of the plants constantly clean, by daily washings, as in Paris, where the trees and turf on the boulevards and gardens are washed over each evening, except when it rains, by means of the hydrants with which the streets are watered, and which have a force on them sufficient to throw the water over the highest trees, and cleanse their foliage completely. It has been suggested that the London squares should have more floral decoration; as we should be anxious to preserve every speck of green in these squares, we would on no account destroy the turf to form flower-beds; but vases on suitable pedestals might be placed in each area, and in the middle of their surrounding border, which would, when filled with flowering plants, give great relief to the planting. We are not sure whether these vases might not surmount stone piers placed on the line of palisading, as an architectural accompaniment to the very common-place railing which encloses them, and thus produce the twofold effect of improving them architecturally and florally.

The flower-borders in Hyde Park, running parallel with Park lane, are not very satisfactory productions, after all that has been said about them, particularly that portion nearest the Marble Arch. It would have been much better to have blocked the street out by carefully planted evergreens, which would have made the walks more private, and would have served as a background for the flowers in summer. As it is, the flowers are too dwarf for the size of the beds, and the arrangement is a clumsy attempt at the artistic. Whoever has the management of this department should go and see how they manage these things in Paris; better—very much better.

G. F.

NOTES FROM KEW.

THE groundwork connected with the erection of the new conservatory for the accommodation of New Holland plants, for some years past so much needed here, is now being proceeded with, and already the walls

of the two octagons, in which the main body of the building is to terminate, begin to make their appearance above ground. Satisfactory progress may therefore now be hoped for in this matter, which has hitherto moved but slowly. The building is to be situated close to the side of the noble vista, or rather wide straight grassy avenue, which lies between the Pagoda and the great Palm-house; and, when finished, may be expected to add a conspicuous feature to that part of the grounds.

In the Palm-house little alteration has taken place since our last report. The plan of sinking the tallest specimens into the floor, so as to give them more head room, has proved an excellent one, not only as respects its effects on the health of the plants, but also as regards appearances. The beds in which the plants grow have been constructed with taste. Attention seems also to be turned to the more efficient decoration of the side shelves, which have hitherto worn a dry and uncomfortable aspect. A portion of these has been edged with *Lycopodium denticulatum*, which gives them a neat and refreshing appearance. Let us hope that improvements of this kind may meet with that encouragement which they deserve.

In the Victoria house, the most conspicuous object at present is the charming *Cissus discolor*, which surrounds the tank in glorious profusion and beauty. At every few feet apart it runs up supports from pots half immersed in water to the roof, the whole being gracefully united together near the base by means of chains as it were of the same fine-foliaged and showy plant. Occupying the centre is the Royal Lily, for which the house was built; not in good health, however, and surrounding it are ordinary blue, red, and white Water Lilies. Here and there, the roof and portico at the entrance are decorated with Snake Cucumbers and ornamental Gourds, whose strange forms and colours seem to interest the public even more than the water plants themselves.

Among flowering plants in other houses we observed some fine varieties of *Tydaea*, of which these gardens apparently possess a fine collection; and when well grown and flowered, as these were, they present an effective and striking appearance. A few Orchids were also in bloom; and we are glad to find that since these have been placed under the care of a new cultivator, which they recently have been, they begin to exhibit better health than they have for some time enjoyed. They have all, or most of them, been repotted, and since then they have made good roots, of which some of them were before nearly destitute. There is also a marked improvement in the collection of Pitcher plants, which must, in justice, be set down however to the credit of the grower who previously had the care of them. These are at the end of a small stove, whose centre is occupied by a tank for water plants. Among the latter was *Victoria Regia*; but, judging from present appearances, it will not flower this season neither here nor in the Victoria house. In this tank there was, however, finely in flower the large blue *Nymphaea gigantea*, a valuable acquisition to tender water plants, and one which has the good property of keeping its flowers longer open than most *Nymphaeas*. Fresh importations of this from Australia are reported to be on their way to England.

With the grand collection of Ferns which this great national establish-

ment possesses most people are acquainted. It is especially rich in Trichomanes, to which some rare additions have recently been made. We also noticed some fine specimens of Gleichenias; and variegated Ferns have received a valuable addition in the shape of *Pteris cretica*, a pretty dwarf kind from Java. This has leaves striped in the centre with white, on each side of which is a band of green, the two colours producing a charming contrast. Variegation in some of the commoner varieties of Fern have, we understand, also been observed here.

Most of our readers, we dare say, have heard of Markham's Cinchona expedition, and of his having brought cases of living plants to Southampton. It may, therefore, interest some to know that he has just sailed for India with such as were considered in sufficiently good condition to stand so great and precarious a journey; the rest are to be brought here to recruit their health before being despatched to their final destination, and for that purpose a house is prepared for their reception.

Out of doors, Kew is not near so brilliant in the way of flowers this season as it has been in former years. The continued rains and comparatively cold weather which we have experienced have here as elsewhere ruined the effect of bedding plants, which have made little growth and have flowered but indifferently. But what else could have been expected? The beds in front of the great Palm-house are reported to have been but the other day fully an inch or more under water. Instead, therefore, of labour being employed in watering, as in former seasons, it has this year been required to cut drains, and even with these it has been found impossible to keep bedding plants in good condition. The case is, however, otherwise with herbaceous plants, which have grown and flowered well. Tritomas now profusely in blossom are, however, an exception. These are not so fine as we have formerly seen them; their brilliancy, however, though tarnished by the rain, renders them tolerably effective. All kinds of shrubs look unusually healthy, and the Grass is everywhere beautifully fresh and green. The interest taken in Kew is, we may add, and with satisfaction, as great as ever. Upwards of 10,000 inspected the grounds on Monday the 27th ult., the day of our visit.

GOOD GRAPES FOR A SMALL OUTLAY.

WHY are not good Grapes more generally obtained than they are by people of small means? It cannot be said that they require an expensive structure to grow in, or great care in making an artificial border, for I have seen Black Hamburgs the second year after planting produce from four to six bunches on a Vine, each weighing from one to two pounds, and of the very finest colour possible. The border was composed of the natural soil of the place, mixed with rotten dung and burnt clay, the bottom being concreted to keep the roots from a cold clay. The house was 60 feet by 12; materials and erecting cost about 20%. I do not, however, mean to say that every one could put up a house so

cheaply, as the lights were bought already glazed, &c., for 7*l*. and a handy labourer, with the assistance of a jobbing carpenter, did the rest of the work; the back wall was also previously in existence. The house in question is very much like the plan described by "G. F." for Peach walls, only the tops of the lights rest on the back wall, and it is ventilated by means of wooden shutters at the top, and a 9-inch board to let down the whole length of the front. The house I speak of I saw put up; I planted the Vines in it, and had the care of them for two summers. Last autumn one of Weeks's boilers was put up to heat two more Vineries and a small Cucumber house; some 3-inch pipes were then led through the cheap house, so as to be able to keep the Grapes till late in the year. The gentleman informs me that this year the Vines in the cheap house are in a most luxuriant condition, and promise to be very fine both in bunch and berry. I should like to hear of others trying the experiment, as I feel convinced that with moderate attention they would be well rewarded for their small outlay and trouble, besides the pleasure of eating good Grapes compared with the half-ripened sour things obtained from open walls. Anyone in or near London wishing to inspect this house, and will pay a visit to J. R. Scott, Esq., Crouch End, Hornsey, will see what is to be done for a small outlay. They will also see the effect of and productiveness of pyramidal fruit trees, such as were described in your last number. Even in such a spring as that of 1859, out of 70 trees quite one-third bore a full crop, and this year nearly the whole require a liberal thinning. As Mr. Scott has not imbibed the bedding-out mania, visitors must not expect to see any grand display of ribbon borders, &c.; but they will find a garden that never looks naked, neither winter nor summer, and which looks as large again as it really is—a remark I have often heard from visitors, both amateur and professional. The principal things used for ornament are blocks of wood, Ferns, Periwinkle, some of the Saxifragas, pillar Roses, a few good Conifers, Rhododendrons, and other hardy evergreens, the whole forming a very good effect, which I think will please many owners of small gardens.

J. R. B.

OUT-DOOR CULTURE OF VIOLETS.

THESE humble and lowly plants possess a charm that is universally recognised. The bland and agreeable fragrance of their flowers give them a ready admittance to the cottage of the peasant as well as the palace of the noblest of the land. They are the pleasant offerings of joyous youth to the feeble hand of declining age, and they are frequently sent as the expressive symbol of sympathy to distant afflicted friends. The culture of the Violet is so simple that everybody in the possession of a small garden may have an occasional supply of these delightful flowers from the latter end of August to the beginning of May.

The Russian Violet is a very hardy variety, and is the earliest in producing its flowers, which it continues to do for a long period. The plants make a good edging to footpaths, and will grow equally well either exposed to the sun or under the shade of trees, where however

their roots may have plenty of nourishment. About the middle of April, or as soon as the plants have done flowering, they should be all taken up and separated, selecting the runners of the previous year, if well rooted; but the old plants will do equally well if reduced to small plants and their long roots cut back. The ground should then be deeply dug, and a portion of fresh soil and well-decomposed manure added. The plants should then be planted about ten inches apart. They require to be supplied with water occasionally, to keep them in a growing state during the summer. They will amply repay in the autumn with abundance of flowers the little attention required.

The double purple Violet is a hardy variety, producing its large double blossoms from March until May. Its treatment during summer is the same as that for the Russian; but let no one expect to have flowers in the perfection to which they are capable of attaining without taking the plants up annually, redividing and planting at least ten inches apart. They ought to be planted in various situations, and aspects, to keep up a continuous supply.

The tree Violet is a variety of comparatively recent introduction. It is very hardy, an early and free bloomer, and very desirable for out-of-door culture; but no attention should then be paid to its arborescent peculiarity.

The Neapolitan Violet is much more tender than the above varieties, but it will, nevertheless, produce in many situations an abundance of fine flowers out of doors. A dry and sheltered place should be selected for it. The plants should be planted from twelve to sixteen inches apart. The runners should be carefully removed during the summer, except two or three of the earliest from each plant; and these should be pegged down, to keep up a supply for renewal next season. As they are very subject to mouldiness from damp, every care should be taken to prevent that evil by judiciously removing, when overcrowded, a part of their foliage, and as the winter approaches all decaying leaves.

There are other varieties, but these may suffice to give a supply of flowers whilst the weather is mild and open during winter, and an abundant supply during spring.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—Look over and attend to previous directions respecting Azaleas, and water plants growing in heat very carefully and rather liberally, syringing them freely every evening, and maintaining a regularly moist atmosphere. Also see that these are perfectly free from their great enemy black thrips, and if any of the plants are found to be infested with this pest use some means at once to effectually clear them; perhaps the most effectual, and where many plants have to be cleared, the cheapest and quickest plan is to smoke rather strongly at night and again the following morning, taking care to have the foliage perfectly dry and the atmosphere as much so as possible, for the foliage of these when damp is easily injured by tobacco smoke, but if perfectly dry will stand almost any amount. Specimens in heat which have

their bloom buds prominent should be removed to a cool house at once, but be satisfied that they are well and regularly set before placing them in a cool house. Young plants where there is the chance of keeping them in a moist growing temperature until November, may have any over luxuriant shoots stopped, or such as are inclining to set for bloom without having made as much increase in size as it may be desirable that they should have done, may be stopped regularly over, thinning out all weakly back shoots which can be spared. If any of the specimens of Camellias have set too many bloom buds, which we must say is not the case with many of ours, these should be thinned out freely, bearing in mind that if too large a quantity is left the flowers will be wanting in size, and the plants will probably be weakly and sickly next season. Plants which set for bloom early and have been placed out of doors must be guarded from too much moisture at the root by laying them on their sides or otherwise protecting them; and where this cannot be done when necessary, the plants had better be placed in the coolest house at command, and under any circumstances the whole stock will be safer under glass towards the end of the month, unless there is a very decided change in the weather. (*Conservatory.*—

Where the gaiety of this house principally depends for the present upon Achimenes, Clerodendrons, and other plants requiring similar treatment, it will be advisable, should we unfortunately experience a further continuance of wet, cold and sunless weather, to use a little fire-heat occasionally to warm and dry the atmosphere, so as to prevent tender things being injured by cold damp; and such things should be carefully examined daily, and all decaying blooms, &c., removed as they appear. Any of the occupants of this house which may be out of doors had better be placed under glass at once unless there is a decided change in the weather; and preparations should be made for housing the whole stock of Camellias, &c., towards the end of the month. Get any necessary repairs or cleaning done to the house, and also see that the plants are thoroughly cleaned before placing them in winter quarters.

Cold Frames.—Look over and attend to previous directions regarding hard-wooded things, and expose such as have made sufficient growth to a freer circulation of air, so as to get the young wood well matured before winter, and give every encouragement to any which are weakly, watering these very carefully and keeping them perfectly free from insects. Look sharply after mildew, particularly on things being kept rather close which are known to be subject to be attacked by it, and apply sulphur immediately it is perceived. If not already done, get a sufficient stock of Cinerarias potted off, and early rooted plants repotted directly the roots fill their pots, using good turfy loam, mixed with a little old rotten cow-dung, and sufficient silver sand to enable the water to percolate freely through the ball. Shift on seedling plants intended for early blooming, and be careful to keep the whole stock perfectly free from aphids and mildew, and give air freely, to ensure strong stocky growth. Primulas will also require careful looking after, and those intended for early flowering should be strong and ready for shifting into their blooming pots, and these should not be allowed to suffer through the want of pot room. Give air freely on fine days, and remove

decaying leaves, or any other indications of damp, immediately they are observed. Cuttings of the shrubby kinds of *Calceolarias* should be rooted at once, or as soon as they can be obtained; and the old plants may be partially disrooted, removing as much of the old soil as may seem unfit for the roots to work in, repotting them in as small pots as the balls can be got conveniently into, and keeping them close until they start into free growth. These will make large effective specimens for decorative purposes next season. Attend carefully to the plants of the herbaceous kinds, pricking out into small pots and repotting as may be necessary, and keeping the plants near the glass, rather close, and perfectly clear of aphids. *Flower Garden*.—The work of propagation should now be persevered with until there is a sufficient stock of everything prepared to meet the demand next spring; and any alterations intended to be made in filling the beds next season should be noted and stock prepared accordingly, for it is oftentimes very difficult to prepare for such alterations unless they are decided upon at the proper time; alterations involving the transplanting of trees or shrubs may be proceeded with at the earliest convenience, the present month being perhaps the most suitable in the year for transplanting. *Greenhouse*.—Any of the stock which is out of doors with no means of protecting them from wet save by laying the pots on their sides had better be removed to the house, at once unless there is a decided change in the weather; but if the weather should prove dry and fine, Heaths and many other things will be better left out until towards the end of the month. Such things as require to have their wood well ripened in autumn, to induce them to bloom freely, must be exposed freely to the sun on every opportunity, and shading will hardly be any further required this season. Take advantage of spare time to repot and tie any of the specimens requiring such attention, and endeavour to have the plants neat and trim before the house is made up for the winter. *Stove*.—See that everything is perfectly clear of insects here, and employ any spare time in well washing the foliage of *Ixoras* and other hard-wooded things.

Hardy Fruit.—Every attention must now be given to the ripening fruit. Early Pears must be closely watched, for there are many kinds which if allowed to hang a few days too long on the trees, are apt to become mealy and deficient in flavour. Early Apples are best gathered from the tree as they may be required for use. Peaches and Nectarines should be guarded as much as possible from the depredations of insects. Wasps are not likely to be very troublesome this cold wet season, but let every means be taken to destroy earwigs, woodlice, and snails. Remove the leaves that cover the fruit, so that it may have the full benefit of the direct rays of the sun. Coe's Golden Drop, Late Red, and Imperatrice Plums, should now be protected with nets or canvas, for use late in the autumn. As soon as any wall trees are clear of the crop of fruit, clear them of dead leaves and useless shoots, and give them a good washing. Strawberry beds should now be cleared from all runners, and the ground dressed with rotten manure and forked in between the plants, to encourage a healthy growth in the plants before winter. Prepare fresh ground for new plantations, and choose dull

weather for planting them. If any runners are required for spring planting, they had better be set thickly in nursery beds in light soil, to encourage plenty of roots. Orchard houses should now have air night and day. *Peach-house*.—Remove the sashes from the late houses. Go over the trees, and remove the shoots where they are over crowded especially those that have borne fruit, cutting them out to the successional shoot at the base. Well syringe the trees, and water the borders if considered necessary. *Cucumbers and Melons*.—Plant out those sown last month in large pots or boxes in pits that are artificially heated for winter bearing. Keep the plants strong and hardy by giving abundance of air. Sow again the end of the month for succession. Those bearing in frames should have the linings renewed when the heat declines; see previous directions; a brisk heat, and a good soaking of liquid manure, will keep them in bearing for some time to come. Late Melons require the heat to be kept up, so that plenty of air may be given; very little water is now required. *Pines*.—Pot crowns and suckers, and place them in a moist close atmosphere, and slightly shaded in bright sunshine till they are rooted, when the usual treatment for succession plants may be given. Finish potting all plants required for fruiting next year, or plant on ridges, as previously advised. Those plants intended for fruiting in the spring should be kept moderately dry, and the temperature steady, when the fruit is swelling. Keep a moist night temperature from 70° to 75°, with an increase of 15° by sun-heat. *Vinery*.—As soon as any of the houses are clear of the crop, and the wood well matured, remove the sashes, and get the house cleaned and painted if required. Keep a dry atmosphere to ripe Grapes, and a little fire-heat occasionally through the day in damp weather would be beneficial, at the same time giving plenty of air, to dry the house. Fire-heat is also required in cold weather for late Muscats and other late Grapes till such time as they are perfectly ripe. Pot Vines intended for fruiting next year should be taken out of the house as soon as the wood is ripe, and nailed to a warm wall. Cover the pots with litter, when they can remain till required for forcing. *Kitchen Garden*.—If this month proves dry, every opportunity should be taken to destroy weeds among all crops and in every part of the garden, for, after this month is past, an opportunity seldom offers to get down the weeds before winter sets in. Hoe and thin advancing crops of Turnips and Spinach; the winter crop of the latter should be sown early in the month. Choose dry days for earthing Cardoons and Celery, and all the winter crops of Greens, Cabbage, and Broccoli should be earthed up. Plant out green-curled and Batavian Endive and Lettuce sown last month. Tie up for use, and make another sowing of the sorts before named; this must be done early in the month. Plant out the August sowing of Cauliflowers in a protected situation, and make another sowing the second week either in a cold frame or on a warm border. Take up Onions, and get them well dried before housing. Thin and stop Tomatoes against walls, and remove the leaves from the fruit, to assist their ripening. Take up Potatoes as soon as the tops are dead. The disease appears to be making sad havoc this season, and doubtless the drenching rains in August will hasten the malady. We advise

taking them up as soon as they are at all fit; get them well dried before storing them, and the drier the place the better, and excluded from air. It is a good plan to use lime dust among them, which will absorb a deal of moisture, and dry up the diseased parts.

FLORISTS' FLOWERS.

Auriculas.—These will now remain in their autumn quarters until the beginning of October. Care must be taken that green-fly does not get hold of them, and that they are kept clear of weeds and decayed leaves, though it is not well to take off the latter until they are quite yellow. Watering must depend very much on the state of the weather; they ought not to be kept too dry, nor do I think they should be exposed to rain. Excess of moisture is, I think, the great foe of the *Auricula*. The present month is a good time to add to the stock any varieties not possessed. Chapman's *Maria* and *Sophia*, Lightbody's *Richard Headly*, Maclean's *Unique*, Leigh's *Colonel Taylor*, Cheetham's *Lancashire Hero*, Martin's *Mrs. Sturrock*, Spalding's *Blackbird*, are sorts which are well worth adding, and which ought to be in every collection. *Carnations and Picotees*.—As soon as the layers have well rooted, they ought to be taken off and potted; the best plan is either to pot them singly or a pair in a pot. I generally use the stuff in which they have been growing for this purpose—the strength is pretty well gone out of it, and one is quite sure no wireworms exist in it; others recommend simply loam and a little sand; but whatever is used, the object, it must be recollected, is not to grow them strongly during the winter but to keep them in sound health, making roots ready for next year's growth. *Dahlias*.—A very late and awkward season for these. There has been so much wet that they have run much into wood, and have required considerable thinning out. Slugs, too, have been most active; and those who did not dust them with lime in the early part of the season, have, I fear, suffered from their ravages. Should the weather continue fine there will be, if care be used in disbudding, I should think some fine blooms, as the plants generally speaking are strong. *Pansies*.—Cuttings taken last month are about the best for growing in pots. As they become rooted, they should be either put into store beds or potted in thumbs. The present cool summer has been a very good one for their growth, though, like everything else, the blooms have suffered. Our Scotch raisers seem to have added some fine varieties to their lists. *Pinks*.—Rooted pipings should now be in store beds, to remain there until the first week in October, when they should be removed into the blooming beds. We hope shortly to figure something first rate, and to give a list of new ones which will merit a place in the most select collection. *Pelargoniums* will now be making their growth. Any not repotted ought to be done at once, as one great object is to get their growth well forward by the winter. It is a great mistake to repot or change in February as some do; the sure result of this is to drive them into wood, and so to lose the bloom. The pots ought to be well filled with roots by November, and then, when they start for spring growth, it will be all for bloom. We shall have a word or two to say about new varieties here, too, next month.

...army personnel and you will have something to show for it.

[illegible][illegible]



1. Beautiful. (*Maclean*)

2. The Rev^d H. Mathews. (*Kirtland*)

Plate 169.

PINKS AND PICOTEES.

(PLATE 169).

It is not for the mere purpose of alliteration that I have put these together, or that one of each has been selected for the illustration of this month. They are approaching one another so rapidly at any rate in size that I think ere long one will be shown quite as large as the other. Anyone who saw the blooms of the former at the National Rose Show would be willing to agree in the likelihood of this. When we look back some twenty years, and remember what Pinks were then, and see what they are now, we may well wonder at the marvellous progress they have made. At that time jagged edges, small flowers, or else great confused things, more like mops than anything else, were in favour in north and south. Deadly feuds existed between the favourers of each party; but latterly flowers have been introduced which bid fair to meet with admirers in all parts of the kingdom; still, amongst the small growers of the north, not only have the thin flowers a place in their affections, but black and whites are still shown—a class utterly unknown in the south, in which the edge is entirely wanting, and only the centre of the flower is coloured. To the great change that has been thus produced in this exceedingly pretty and sweet flower, we are mainly indebted to the indefatigable perseverance and skilful hybridising of that veteran florist, Dr. Maclean of Colchester. A reference to any list of Pinks grown for sale will show how largely his flowers are in cultivation, and how impossible it is to grow a collection without a considerable number of his being in it; and amongst the many that he has raised, including such kinds as John Ball, Charles Turner, &c., &c., BEAUTIFUL bids fair to take a foremost place. It is an exceedingly chaste flower, perfectly rose leaved, with a good broad belt of colour on each petal, not over large, and no way confused in the arrangement of its petals; it is, moreover, an excellent “doer,” grows well, and increases rapidly. Some kinds throw up so many flowering stems that it is often impossible to get the increase one wants—not so with this variety. Mr. Turner has also himself added some very valuable kinds to the lists, and is a most extensive grower of them, as I suppose everybody pretty well knows, but not perhaps to the real extent of his operations. I saw this day over 20,000 plants bedded out in stock beds, to grow on there until the early part of October, unless indeed orders do not, which they are very likely to do, materially thin them before that. My friend “Iota” too is in the field as a raiser of seedlings; and from a batch of blooms which I saw of his

this year, I doubt not he will bring forward something really valuable. It may perhaps be superfluous to say anything about the cultivation of so well-known a flower; but as there may be some who would like to follow a successful grower in his plans, I will just give a few hints as to the way in which they are managed by one of the first growers in the kingdom.

Soil and Situation.—The Pink, being a hardy flower, is, unlike its congeners, the Carnation and Picotee, not so particular in these respects. Where a garden is tolerably dry, and has been well cared for for some years, any part of it will grow them. To do it properly, the ground should be well trenched, and a layer of cow-dung three or four inches deep, slightly mixed with the soil, should be laid about five inches beneath the surface; these beds should be prepared not later than the latter end of September. The beds are best raised a few inches above the level of the garden, as wet is injurious to the well-being of the plants during the winter months. If the soil of the garden is not suitable, a mixture of yellowish loam, garden mould, and rotten manure, of about one-third each, with some road-grit to keep it open, is as good a compost as can be used.

Planting out.—This should be effected not later than from the 10th to the 17th of October; if planted later there is great risk of their not coming laced in the spring. In selecting plants the mistake is oftentimes committed of choosing the bushiest ones; the consequence is, that they throw up a large quantity of flower-stems, none of which are so strong as those that come from smaller but stouter plants; about seven inches apart is a very good distance, and care will be required as to the distribution of colours and height of the various sorts.

Winter and Spring Management.—Being, as I have said, hardy, they will not require protection. Of course care will be given to the cleanliness of the beds, and sometimes the plants become loosened by alternate frosts and thaws, they will then require tightening in the soil again. In April or May the beds will require a good top-dressing, to encourage the plants for blooming; this should be of well rotted manure passed through a sieve; it may either be laid on the surface of the beds or *slightly* forked in, the nourishing ingredients washed down to the roots greatly stimulate the growth of the plants.

Blooming.—The plants, as they spindle for bloom, should be carefully watched, and only three or at most four stems allowed to remain on each plant; these should be tied to neat stakes, and as the buds appear only three or four should be left on each stem. If the weather should be dry at this season, the watering-pot should be freely used; as the buds swell, those which are liable to burst should be tied with a piece of bast mat; but we are getting so many of the long-podded varieties, that ere long it is to be hoped this process may be done away with. Those who look for extra fine blooms will now shade, either with small glasses, on top of which a piece of Rhubarb leaf is laid, when the sun is out, or with pieces of flat board; thus managed, a fine bloom will be secured, and let no one imagine this is too troublesome, no flower can be grown properly

without it; of course good blooms can be had without it, but not first-rate ones. Cards will also be used by those who are very careful in their cultivation.

Increase.—This will be effected by pipings; those who wish to have a large collection, will put one sort only under a small handglass, while the smaller grower will use the same for several varieties; a spent hotbed is the best place, care being taken to exclude worms, which throw the young plants out of the ground. When struck they should be put into store beds in any part of the garden, and carefully watered, from thence to be removed to the blooming beds.

Choice of sorts.—There are so many valuable kinds that many of the old ones may now be discarded. Amongst the newest varieties are—

BEAUTIFUL (Maclean), reddish purple, broad belt of colour, very smooth on the edge, large petal, medium sized flower, but well deserving its name; awarded a first-class certificate by the Floral Committee. See plate.

SCARLET GEM (Maclean), bright red, a little serrated on the edge, but very attractive for its colour.

MRS. TURNER (Maclean), rose, very heavily laced, smooth on the edge, and a very showy flower.

WINSOME (Maclean), very broad petal, well laced, purple, a good and large sized flower.

PRIDE OF COLCHESTER (Maclean), bright purple, very full, but a little rough.

REGENT OF FRANCE (Maclean), an improved Eugenie.

ANNIE (Maclean), red, broad petal, smooth on the edge, a good flower.

Of older varieties the following contain the cream of those now in growth:—

CHARLES TURNER (Maclean), dark purple, very attractive.

ELEANOR (Turner), rose, a fine smooth and large sized flower.

LITTLE GEM (Maclean), red, not over-sized, but very pretty.

MISS GLOVER (Turner), purple, large good flower.

MILLIE (Maclean), dark, heavily laced flower, fair size and of excellent quality.

The above are the best of the new sorts of 1859.

John Ball, dark plum purple; Beauty, red; Miss Nightingale, a very fine large-sized flower; Miss Eaton, purple, very pretty; Clara, red, full sized; Eugenie, rosy lilac; Mr. Hobbs, rosy purple; Mrs. Norman, rosy purple, very pretty; Napoleon (Norman), very rich colour, rather thin, but attractive; Bonny Jean (Maclean), red, in the way, as far as petal goes, of Criterion, but a different colour; Narborough Buck (Maclean), dark; Prince Napoleon, dark large full flower, very good; Colchester Cardinal, purple, a very pretty and constant flower; James Hogg (Bragg), dark and good.

This selection will, I think, afford satisfaction to any one who attempts to grow them. May they have good success, and enjoy much satisfaction, both in sight and smell from them!

Deal, Sept. 17. D.

FLOWER POTS.

THE old-fashioned flower-pot seems destined to have an imperishable existence, for notwithstanding all that has been said and written to direct attention to improvements in its appearance, no progress has taken place, either in the material or ornamentation, to mark an advance; and we still see the same description of pot as we did thirty years back; aye, 130, judging from old specimens we lately put our hands on, and which were manufactured in the time of the First George.

To be sure, there are certain conditions in so extensive a field as pot cultivation that call for cheapness, simplicity, and that the material of which they are composed should be favourable to the plants; and these conditions are unquestionably complied with, and therefore nothing can be advanced against their economy or adaptation, and, such being the case, something like the present shaped pot will continue to be largely employed. But as there are individuals who do not begrudge giving their five or ten guineas for a plant, surely such might be accommodated with something more appropriate than the common-shaped pot, which has but little to recommend it beyond its capacity to contain a given quantity of compost. We recollect that in the Exhibition of 1851 several ornamented forms of garden pots, manufactured from ordinary potter's clay, were exhibited, as well as others in terra cotta and artificial stone. But we rarely ever see plants in anything of the kind; except that we remember, some years back, Mr. Fleming, of Trentham, exhibited plants grown in pots made from the same material as the Staffordshire stone or delf ware, and we know that both Mr. Fleming and his late neighbour, Mr. Forsyth, of Alton Towers, have demonstrated by actual proof that plants will thrive in glazed pots equally well as in porous ones; as a further proof of which we may refer to the plants which have frequently been exhibited by Mr. Beck, growing in slate boxes. We may therefore dismiss from our minds all ideas as to a non-porous material being inimical to the health of plants, and may therefore consider the improvement of flower-pots without reference to this question. Mr. Phillips, of Weston-super-mare (who has an excellent clay), makes ornamental pots in several designs, and it is a pity they are not more generally known. The French pots are much more tastefully made than our own, and are quite as cheap; they are wider at the top in proportion to their depth, and the rim is increased in size and made into a broad band or fillet, which simple improvement adds greatly to their finish, the projection forming a kind of handle to lift them by, which the paltry rim on English pots does not. Many of the French and Continental pots also have a swell in the middle, or bulge slightly outwards; this, also, we consider an improvement on our straight-sided pots, as it gives them more a vase-like character. These might be easily copied, and doubtless improved upon, and would not be more expensive than the common pots of our own make.

But our more immediate object is to direct attention to terra cotta as the most beautiful and durable of materials for ornamental pots.

We lately paid a visit to the terra cotta manufactory of Mr. Blashfield, at Stamford, and were surprised to hear how cheaply ornamental flower-pots could be made, if once a demand was established for them. We consider that for the conservatory and show-houses, when specimen plants are grown, terra cotta pots, of different shapes, ornamented, or the common one with a mere moulded rim, would give the plants and place a much more classic and elegant appearance than when grown as we now see them. Unlike stone, terra cotta productions are almost imperishable; they possess a warm tint of colour, and are not at all liable to become covered with Moss or Lichen, and from our own knowledge of the subject, we feel satisfied that the most delicate plant may safely be grown in them. We wish Mr. Blashfield would turn his attention to manufacturing an article of this description, for which his establishment and the materials at his command are admirably suited. If he could be induced to do so, we think he would give an impulse to an important branch of garden economy, and one which would tend to improve that hitherto very stationary article of daily use in gardens, our English flower pot. We hope the exhibition of 1862 will produce some improvements in this branch of manufacture, cheap enough for universal use.

NEW GRAPE.

A SMALL bunch of a seedling raised by Mr. Ingram, of Frogmore, accompanied by the following letter, was exhibited at a late meeting of the Horticultural Society, by Mr. Standish, of Bagshot. Mr. Standish said:—

“I herewith send you a seedling Grape which was raised by Mr. Ingram, of the Royal Gardens, Frogmore, from a seedling Black Grape fertilised by the Muscat of Alexandria, which I shall call Ingram’s Hardy Prolific Muscat, and which I have no hesitation in saying is the most prolific and the best setting variety of Grape I ever saw, and very hardy in constitution. The specimen sent is from a plant raised from cuttings taken in May, 1859, from a growing plant which Mr. Ingram gave me, and which, when started in January last, although not bigger than a straw, yet showed fruit at every eye. I send this small specimen just to draw the attention of the Fruit Committee to it, and on the 30th I will send some more, rather better and riper, but it cannot be expected out of such materials that I can this year show any fine bunches. The committee will, however, be able to form an opinion of its excellent qualities, and next year I hope to show it in better condition. One thing I venture to say, however bad the gardener may be, he cannot fail to have a crop of some kind or other, as it is so easy of culture. The seed which produced this plant was sown in January, 1857, and in July, 1858, the seedling plant had nine bunches of Grapes on it. It ripens quite as early as the Black Hamburgh, if not earlier, and in a lower temperature; and for forcing and for pot culture it has no equal. It has all the vinous quality of the Black Hamburgh, and when fully ripe acquires a delicate subdued muscat flavour. I am growing a

quantity of plants, and next year I shall be able to show it at every metropolitan fruit show."

This Grape, as exhibited, produced a bunch nine inches long, narrow and tapering, very well set, without shoulders. In the shape of the bunches and berries it bears a strong resemblance to Black Prince, but the berries are not so large as in that variety; they are perfectly oval, the skin quite black, covered with thin bloom; flesh firmer than that of Black Hamburgh, very juicy, the juice rich and sprightly, with a slight muscat flavour. The opinion of the committee was reserved till the next meeting, at which the variety was to be exhibited in better condition.

LETTERS FROM THE CONTINENT.

FLORENCE.

STRANGERS sometimes see by accident, or from ignorance of etiquette, what residents could not get at. A blunder that I made this morning has caused some of my acquaintance to envy the advantage which resulted.

I went to the Pitti Palace early, and passing the sentinels in the Grand Porch without a challenge, I found myself at the foot of the Grand Staircase, which a troop of active gardeners had been decorating. Their work was still incomplete; mechanics of all sorts, busy as bees, were employed in preparing the Palace for a grand banquet and ball, to be given to-night by King Victor Emmanuel, and for which I have the honour of an invitation, and shall see those choice adornments under the influence of the many thousand wax candles—a light by far more agreeable than lamps or flaring gas.

On every step of these grand marble stairs, on each side, Orange-trees, Oleanders, Roses, Myrtles, Camellias, Tree Pæonies, Acacias, Lilacs, and Vines alternated in graceful combination, and although in very large jars or pans of fine red clay, well modelled, eight persons could walk abreast between the foliage of this temporary grove, most of the plants were aromatic, and all in the perfection of vigorous bloom. The abundance, variety, and size of the Camellias surprised me; I had seen such countless numbers of blossoms employed at the illumination on Tuesday, that I said, not only Europe must have been ransacked for them, but Japan and China laid under contribution. Red and white Camellias with green Laurel leaves form the tricolor of freedom for Tuscany, and thus garlands of those beautiful exotics, pendant from the house tops, crossed the streets leading to the Palace. Florence is so famous for Camellias that M. Sloane, a celebrated horticulturist here, has furnished seeds to nearly all the gardeners of Europe. I made inquiry about the growth of trees, tall as those I had seen on the ducal staircase in vases so portable, and learned that for decorating interiors plants are purposely trained, the roots cut, peat soil substituted, and other stimulants administered, until flowering shrubs under which you can promenade grow in garden-pots that one man can lift.

Some of the *Rubus* tribe—discarded now, but once esteemed in England—are most useful plants for extemporaneous ornamentation; such as *Rubus* ——. I have no books of reference at hand, but old-fashioned folks will recollect the plant I mean as the Virginian Raspberry; the leaves are grand, and the clusters of amethystine flowers are as large as and very like a *Cistus*; the tint of this Bramble's blossom is like the colour known to artists as the purple of Cassius, and as the plant flowers freely, and the footstalks of the bunches are long, the colours are conspicuously developed, and when seen by transmitted light, the resemblance between this peculiar tint and that of the richest and rarest stained glass, as seen in our old church windows, is remarkable. The art of giving to glass this fine ruby, and also *this* rich purple tint, is said to be lost. These colours, which so much delighted me, as I gazed in my childhood at the glorious windows of that most august of Christian temples, York Cathedral, Mr. Peckett (at that time employed to put in some new windows), told me had been produced by a large admixture of pure gold.

The Boboli Garden—why so called, I inquired in vain—is the domain attached to the Pitti Palace; but yesterday the residence of a Grand Duke—to-day the abode of Victor Emmanuel, the chosen ruler of Tuscany. Commensurate with the mighty edifice, with its stern façade, is the entrance to this famous garden. The façade fronting the pleasure-grounds is more diversified; the Luxembourg is said to be an imitation of this garden front, and the parterre immediately under the windows is of similar character—*Verbenas*, *Calceolarias*, *Tom Thumb Geraniums*, with the everlasting variegated edgings, make a gay assemblage. But from such trivialities one turns hastily away, to enjoy the more impressive and majestic effect of those glorious Cedars, grand old Pine-trees, Figs which have antiquity written on their colossal trunks, and whose widely-spread foliage overshadows a space sufficient for twenty persons. The Florentines delight in those palace gardens; you see cheerful groups in all directions, sauntering leisurely and conversing cheerfully, walking with freedom, and not after our English fashion, linked by the elbows. In one open space, reclining on the thick Grass—elastic as a mattress and perfectly dry—there was a large company of vocalists, who sang select parts of popular operas with all the force of voice they could command. I imagined them to be professional artists; one richly-toned tenor I had certainly heard before, either at the concert given by the king, or at the theatre. In St. James's Park or Kensington Gardens, if Mario and Grisi had ventured on a similar enjoyment, company would have flocked so near as to smother them; here it was not so—the songsters had many delighted listeners, but all kept at a courteous distance.

Many German gardeners are employed in Italy; they are generally good linguists, and most of them speak English. I was always glad to make their acquaintance, and was struck by their facility in drawing. Whenever we felt at a loss for the name of some plant, that I was desirous to obtain exact knowledge of, from the bosom of his blouse or the pocket of his apron a tablet was instantly produced, and his ready pencil portrayed the needful details. To sketch individual nature is

quite as easy as to write when the habit is formed and practice renders the act familiar. I wish that my countrymen would think of this, and educate themselves in a like familiarity with the structure of all vegetable forms. When I inquired the altitude of a giant Cypress near the Pavilion I was told that it was upwards of 100 feet. A friend of mine denies that in Europe there are any trees 100 feet high. In passing through the Black Forest in Germany, a scientific fellow-traveller took observations by a quadrant, and noted several Fir trees of 70, 80, or 90 feet. We did not trust to his profession of accuracy. The Cypress in the Boboli gardens was measured by flying a kite over it, entangling the string when it was brought in contact with the summit; then, giving it a precise perpendicularity, measuring the cord.

In those gardens of the Pitti Palace all is formal and regular. Trees are planted in rectangular rows; and their branches are so trained and interlaced as to form long aisles of foliage, as if a lateral shaft had been cut in a solid mass of fresh green. The whole arrangement of the place proclaims the luxury of shade, and of defences against a tyrannous and intrusive sun. For this end are reared those high verdurous walls, to refresh the eye dazzled with the fervour of a summer's noon. For this, grottoes are hollowed out of the rock, and sun-proof roofs of foliage are woven where the freshness and coolness of the morning long lingers and slowly retires. At every turn the stranger encounters statues standing singly or in groups—some colossal, some quaint, and some imposing; some carved by hands no less illustrious than those of Michael Angelo, and others by John of Bologna. The ground is very irregular in its surface, and this inequality makes the formality of the style less offensive. From the heights in the rear of the palace a fine view of Florence is obtained.

At the end of the gardens is a fountain, or, more properly, a circular basin, in which are three colossal statues which claim to represent rivers. This sheet of water is enclosed by a thick belt of trees and evergreen shrubbery; but a broad smooth margin of marble and turf is left between the two, which is a favourite sporting place for children, whose innocent gambols and hilarity one delights to witness.

The gardens of Prince Torregiani are next to the Boboli the most extensive in Florence. In the centre is a lofty tower representing the armorial bearings of the family. The villa, with this large space enclosed by a very high wall, is surrounded by streets, yet neither sight nor sound intrudes on the exclusiveness. More than six acres are dressed with ornamental plants—sculpture in bronze, marble, and richer materials. Several fountains of pure sparkling water send up jets of brilliancy or fall murmuring into tazzas of precious oriental alabaster, polished granite, porphyry or marble. The prevailing fashion for fancy devices in tiny flowers has not invaded this regal garden. Many of the walks are inlaid with coloured stones in graceful patterns, and the whole may be called an out-of-door drawing-room. The family live in the garden, and chiefly use the villa for its bed-rooms and baths. The Indians on the eastern slopes of the Andes also live almost entirely in the open air, and seldom occupy their habitations except at night. They bask in the sun until it is a pleasant change

to roll beneath the shadow of trees; extremes meet. The absence of all that is artificial, and the possession of all that wealth can produce, so far as mere animal enjoyment is concerned, are nearly akin.

The garden rented by the gentleman whose visitor I was during my residence in Florence was not more than 200 feet square, and was precisely like the allotment of nearly every mansion in the city. Never have I seen Roses more abundant, in greater variety, or more fragrant, than those that grew in this limited space. Orange trees, Figs, Jasmine, Oleanders, Pomegranates, and Vines covered the wall; and two fountains, constantly in action, added to the charm. Birds sang on the trees; lizards darted across the walls; Carnations made the air spicy. The owner of this little sanctum coveted not the domain of Prince Torregiani; and I thought of home and my thirty-six plants, which, besides a Ward's case, a double window, and sundry imprisoned Ferns, is all the garden that I have space for; yet to keep those six-and-thirty garden pots always gay affords me amusement perhaps equal to that which many realise from large possessions. To be grateful to the Giver of all good for such blessings as fall to our lot, to appreciate the beauty of all created things, to be content, and to enjoy with thankfulness and without envy the superior advantages of our neighbours, is possible with us all. There are treasures in art which no wealth can purchase, and many other hereditary luxuries which, as heir-looms, cannot be alienated; a check is provided for the most soaring ambition. The coveted Tulips of Dutch burgomasters become a flagrant fiction for bills of exchange; the Mountain Daisy, a poet's theme, a household word. Humility may dwell beneath a royal mantle, and pride in the breast of a pauper. To be truthful in all things, and to do our duty in that station of life to which it has pleased God to call us, is to secure happiness.

C. E.

VISITS TO NURSERIES.—No. II.

MESSRS. E. G. HENDERSON & SON, WELLINGTON NURSERY,
ST. JOHN'S WOOD.

THERE are two seasons in the year when a visit to this well-known establishment (and assuredly it is not the fault of its enterprising proprietors if it be not well known), may be most profitably paid—viz., in spring, when the greenhouses are filled with Azaleas, Camellias, and other flowering plants, and the beds are gay with the various bulbous roots they so largely import and cultivate; or again, in early autumn, when the houses indeed are well nigh empty, but when the various kinds of bedding-plants are on their trial out of doors. Every gardener will at once confess that, for the latter purpose, few seasons have been so unfavourable of late years as the present one; so few things come true to character, so many have hardly bloomed at all, that it is well nigh impossible to pronounce decidedly on what to retain or avoid. However, I had not seen the gardens in the spring, and I did not wish to lose them in the autumn; so, just before going to the Floral Committee, on the 13th, I spent a couple of hours in going through them,

Mr. Andrew Henderson very kindly acting as guide. I need not tell the readers of the *Florist* where the nursery is, or what sorts of things are grown there, for there is hardly a plant, seed, or root grown for display, which they do not bring forward for sale. It is not to be expected that the freshness of a provincial nursery is to be seen here, situated as it is in the outskirts of London, though freed from the more deteriorating influences of the heart of the City, it yet must bear its share of the annoyances of smoke, smut, &c., which a large city is always sure to engender; nor where so much is done commercially, can we look for the large specimen plants which are to be found in the establishments of those who exhibit for competition. The Wellington Road Nursery has, however, long been celebrated for the number of novelties it is continually bringing forward to satisfy the "Athenian" eagerness of the British public for "some new thing." That many of these are failures, and that excessive praise has been bestowed on things which afterwards prove good for nothing, I have more than once shown, and I think it is a great pity that anything should be sent out without first having been well proved; raisers, whether English or foreign, are seldom better judges of the merits and failings of their seedlings than are most parents of those of their children, and a very large per centage ought to be taken off the laudations of those who have been the "fortunate" raisers of such things!—*superlatives* often prove not even *positives*, and the substantives they qualify are often ignominiously cast out upon the dung-heap. Yet with all this drawback, for some of which they are not responsible, they have added a multitude of fine things to the various departments of floriculture.

I have already said that the season is a very indifferent one to judge of bedding-out plants, but I saw two beds which struck me as being very effective; one, a long bed, about 20 ft. by 4 ft., had a pattern in it very similar to the stands on which a child's box of soldiers is made to move backwards and forwards, or the scissors which an invalid uses to take up anything beyond the reach of his unassisted hands, the pattern being made of the Golden Fleece and Cloth of Gold Geraniums, and the interstices filled up with various silver variegated ones; these two golden varieties are an improvement on Golden Chain, as their leaves are nearly all yellow and much more free in growth—the naked stems of the older variety often making it difficult to use it effectively. The sorts might be varied; thus, the pattern in Bijou, and the interstices filled with *Verbena venosa*, would make, I think, a charming bed. The second bed was edged with *GAZANIA SPLENDENS*, and the centre filled with a choice collection of *Gladioli*. I had here an opportunity of comparing this fine bedding plant with what it was supposed to be merely a synonym of, *Gazania* or *Gorteria ringens*, and a glance at once shows the difference; the habit of the older kind is, as its name implies, *stiff*, not nearly so branching and spreading as *splendens*, the flowers are very similar in colour, but the petals are much broader and finer in *splendens*, which is one of the prettiest things possible on a sunshiny day. It is difficult to convey an idea of the beauty of the new varieties of that fashionable flower the *Gladiolus*; all shades of crimson, scarlet, purple, salmon, buff, spotted, striped, &c., are to be found amongst them, and

as Her Majesty (we understand) has patronised them, and always had them on her table during the season, we fully expect to see them more fully grown. Of Verbenas it is impossible to say anything; the wet season had so thoroughly thrown them out of character, that they might have been old or new, bad or good, for all we could tell. In other out-of-door plants I noticed a light-coloured variety of *CALCEOLARIA AMPLEXICAULIS*, pretty, and *DESFONTAINIA SPINOSA*, a Holly-like looking plant, with red tubular flowers tipped with orange. The Lili-put Dahlias will hardly be in much vogue; the flowers are small, fit for cutting for bouquets, but the plants not being proportionately dwarf, they do not seem very desirable, and when one has the same colours in the German and Truffaut Asters, small and large, the Dahlia is hardly required; were they dwarf as well, they would come in very nicely for many purposes. I saw also *Spergula pilifera*, and, despite of "D.B.," I hold to the expression, which he devoted a paper to overturning, that to suppose it will ever supersede Grass for lawns is *preposterous*. It has been a good thing for some people, and for fiddling ornamental work may answer, but for nothing else; this wet season has been much in its favour, and yet one hears continual statements that it does not answer—what will become of it in a dry scorching summer? *Anemone vitifolia*, sent out by the Horticultural Society some years ago, and lost sight of, may become useful as an autumn white-flowering variety.

Amongst stove and greenhouse plants, although not their season, there were some very beautiful things in bloom, the most striking of which were *CLIANTHUS DAMPIERI* and *LAPAGERIA ROSEA*; the former, one of the most striking of plants, known to the readers of the *Florist* by a very excellent figure of it, by Andrews, in the volume for 1858; it has been considered a difficult plant to grow, and as a pot one it is so, but Messrs. Henderson have evidently hit on the true treatment; it is planted out in the bed in the greenhouse, and considered a biennial; it has run along the wire trellis, and from every axil springs a short stem, on which is a bunch of its gorgeous crimson and black flowers. It is a very old plant, having been discovered in 1699, and its habit being on the dry sandy islands of Dampier's Archipelago, accounts for the difficulty of management as a pot plant. Close by it—too close for effect—was a beautifully bloomed plant of the climbing *Lapageria rosea*, with striking bell-shaped flowers of a soft rosy tint, which, produced in considerable profusion, are very ornamental. There was also a new Himalayan plant, exhibited some short time since at the Floral Committee, *EPEGYNIA CAMPYLOBOTRIS*—(I cannot vouch for my correctness here in orthography)—valuable for its clusters of curious white berries, the end of each berry being encircled with a ring of blush with black spots. In the stove were some of the new *Caladiums* and other ornamental plants, *Caladium Belleymerii* and *Wightii* being certainly the best of the newest varieties, as is argyries of the older ones. Nothing can be more beautiful than the blotchings and spottings of these leaves, except, it may be, the beauteous little *Anæctochili* from Ceylon, India, and Borneo; difficult—most difficult to grow—but surpassingly beautiful in foliage. The *Pteridæ*, too, were very pretty, especially the one exhibited this year, *P. tricolor*, but it is not as likely to be so effective

in a large plant as *P. argyrites*, as the variegation becomes fainter as the leaf increases in age. I saw, too, in one of the houses, *Ipomoea limbata*, a very pretty annual, but having the disadvantage that it wastes its sweetness on the night air, the bloom seldom lasting after ten o'clock. *HETEROCENTRUM ROSEUM* is a pretty greenhouse plant, useful to many exhibitors in the country, who are often sadly put to it for such plants in the latter part of summer, when their shows are principally held. There was also a fine collection of hardy evergreen Ferns, very valuable for those who wish for a continued greenery. It would be vain to attempt a description of the things we saw and the wholesale manner in which propagation is carried on, although the houses are not even now sufficient for their purposes, and a long series of pits is in course of erection; in fact, wherever one goes there is accumulative evidence that the taste for floriculture is rapidly increasing; and if enterprise, skill, and I may add, in general fair dealing and reasonable prices can increase that taste, I think it is due to the nurserymen of England to say that they do very materially aid in developing it.

I had hoped to have had a good opportunity of seeing and deciding on the various novelties advertised this spring in the bedding way, but the season has prevented all that. I could not, however, let my visit be quite fruitless, and so have jotted down what struck me as deserving of notice. Persons looking at gardens not over critically would perhaps not see the difference that season has made; but when you attempt to discriminate between varieties which approach near to one another, then the hopelessness of the task is at once manifest; in the same way there will be great difficulty in determining as to seedlings of the present year. I saw one batch of Verbenas, for instance, and it was almost impossible to tell what they were. It would be well, were it possible, that these and other bedding flowers should have, as Dahlias, &c., do, a second year's trial before sending out. This more especially refers to foreign raisers, who send out almost everything they raise; for however he may be in their eyes "perfidious Albion," our payments are not perfidious; and Monsieur likes very well the complexion of an English letter of credit; hence hosts of things come over, which are soon discarded and vanish from existence altogether, and often the odium attaches to the English sender out, instead of to the French or German raiser. Let us hope for better things, and for a more enjoyable summer next year, for the gardener; for only a determined love for flowers could have at all kept one up to the mark this present one.

Deal, Sept. 22.

D.

PEAS.

It has been found by the Fruit and Vegetable Committee of the Horticultural Society that the variety grown as Flanagan's Early was the same as Ringwood Marrow; Wonder, and Cotterell's Wonder, the same as Dickson's Favourite; Tom Thumb, Beck's Gem, and Royal Dwarf (Turner), the same as Pois nain hâtif extra; Paul's Prolific, the same as Victoria Branching; Excelsior, Paradise Marrow, and Stuart's Paradise, the same as Champion of Paris; Gibbs' Defiance, the same

as Victoria Marrow, Prizetaker and Rising Sun were good stocks of Bellamy's Early Green Marrow; Rollisson's Victoria, Flanagan's Imperial, Norfolk Marrow, Great Britain, Thorne's Royal Britain, Green's Superb, Shanley Marrow, Ward's Incomparable, Oxford Tom, and Cotton's Leviathan, were all the same as Tall Mammoth; and Carter's Victoria the same as British Queen. It was also found that the sorts sent as Denyer's Early Prolific Green Marrow, Sutton's Berkshire Hero, and Garbutt's Amazon, were the same as Tall Green Marrow; Stradsett's Marrow the same as Matchless Marrow; Fairhead's Excelsior the same as Climax; and Waite's King of the Marrows, Monarch, Epps' Monarch, and Competitor, the same as Tall Green Wrinkled Mammoth.

ROSE-EDGED PICOTEES.

THIS class has deservedly of late received much admiration, and been increased by several fine varieties, one of which was figured last year in the *Florist*, a heavy-edged flower, called Rev. A. Matthews; the one in the present illustration is a light-edged variety, and has been rather unfortunately named Rev. H. Matthews, for being in the same class, confusion is likely to be created; it is a fine, constant flower, and has received a first-class certificate from the Floral Committee, and will doubtless find its way into most collections. A considerable effort is now being made to revive or keep alive the interest in this class of flowers, and the impetus given to the National Exhibition of them will doubtless bear its fruit; this dreadful bedding-out mania has received somewhat of a check this wet summer, and I shall not be at all surprised if florists' flowers again come into more favour.

Deal, Sept. 17. D.

THE SIX OF SPADES.

CHAPTER VIII.

WITH that anxiety which we ever feel that they whom we like should like each the other, I have essayed to describe carefully and faithfully the members of our little congress; and though I am well aware how facile it is to sketch from nature without being natural, I hope that I have conveyed to genial minds, by which I mean minds horticultural, some accurate presentments, as well as some favorable impressions, with regard to my floral friends. Writing with truth and earnestly, I permit myself to enjoy the pleasant confidence that I may have imparted to my readers some of the brotherly regard and affection which occupies my own heart, for the hoar head of good Mr. Oldacres; for the bright intelligent face of the bearded Chiswick (you should see him in the uniform of our Volunteers, as straight and as handsome as a standard Rose-tree); for the shrewd, thoughtful countenance of Mr. Evans, musing upon soils, and "stopping," and training, with a

view to future exhibitions; for the shining jolliness of Grundy; and for the kindly gladness of our thoughtful curate. And, having this trust as my encouragement, together with some welcome words of approbation which have reached me from friendly critics, I go on joyously to chronicle our proceedings, and follow up my introduction with a cordial invite that you, my reader, will join us, in imagination and sympathy, as we sit in synod, and will listen leniently to our discursive colloquies.

Be with us, therefore, in those "long nights of winter, when the cold north winds blow," chair thyself comfortably by our hebdomadal board within the pleasant influence of our glowing fire, charge thy calumet with the soothing weed, and thy crystal with golden wine from "the bright and laughing barley;" while throned on the tiny clouds above us, that sweet little fairy, Queen Fancy (sister of "Queen Mab," fancy Dahlia, and of "Queen of the Valley," fancy Pelargonium), smiles upon our cheerful convocation; and as she waves her magic wand,

Again the garden glows,
And fills the liberal air;

again our beds and borders (hard-frozen in reality without and hidden by the snow) brighten in their summer sheen; again every greenhouse stage bears its precious freight of loveliness; again we see our Exhibition vans drawn up at the garden gate, and borne delicately, as though we carried some sleeping beauty whom we feared to wake, the specimen plants so long, so fondly tended, come forth to witch the world; again we await in anxious suspense, during two hours which seem a fortnight, the departure of the Censors, and the opening of the doors; again we draw nigh to our favorites, pretending indifference, and trying to saunter, but painfully eager in our fluttering hearts to know what award has been made to us; again those hearts rise, light and bright as a soap-bubble in the sunshine, as we read the welcome words "First Prize," or sink, heavy as an underboiled barm-dumpling, to find that we are not placed; again we hear, victorious, that happy "All right, sir," from our gardener, and like a schoolboy, just informed of a hamper, can scarce forbear to cheer; again, defeated, we entertain for a moment an absurd conviction that the judges are either in league against us or in a state of hopeless intoxication, soon recovering our better mind, and finally feeling all the more likely to bear fruit hereafter, like beaten walnut-trees, or any other tree in fact, since each

"Sucks kindlier nature from a soil enriched
By its own fallen leaves; and man is made
In heart and spirit from deciduous hopes
And things that seem to perish."

Such are our reflections and remembrances, and very soon, after a few preliminary remarks upon the weather, the news of the great world in general and our little world in particular, we come

"Like doves about a dovecot, wheeling round
Our central wish, until we settle there,"

to open our hearts concerning them. And it is amusing to note the change that has come over us, now that our tourney is over, and the

heavy harness of warfare doffed for the trunk-hose of peace. Can we be the same knights, who, whilome reserved, and cold, and dignified, moved through the serried lists? Can I be that captious florist, who, when dear Mr. Oldacres gave me his "candid opinion," which I pressingly solicited, about my bedding out (only I did not really want him to be candid, except in the sweetmeat sense), and told me that I "had sadly too much Perilla, and that the effect of my design was *hearsey*"—can I be the man in whose disappointed breast a malignant voice was permitted to whisper something about a "superannuated jackass?" Alas, I know myself to be so; and I make feeble amends by a tardy thanksgiving to my Mentor, and by an acknowledgment to myself that I deserve flagellation from a robust lateral of *Araucaria imbricata*. And here is Mr. Evans, in a like spirit of meek magnanimity, acknowledging that his Dahlias were not large enough, whereas when the judges gave them second honours, he designated those functionaries as "three old scarecrows," and expressed a strong belief that they were only competent to grow Groundsel for sick canaries. Even Mr. Chiswick is acknowledging a failure with regard to some choice Auriculas, and making to his neighbour the Curate a sort of auricular confession; while wise Mr. Oldacres laughs at us all, well knowing that, when spring and summer come, we shall be just as sensitive, jealous, and self-sufficient as before. "But it's all right," he says, "for you're as honest and earnest in peace as in war, and whether the hand is open for amity or closed for sparring, the heart goes with it. May the best man win!"

Ordinarily, we have no stated subjects for discussion, and we pass from one topic to another, as the occasion prompts. We touch promiscuously upon boilers, flues, and stoves; heating, shading, and ventilating; washing, sulphurating, and fumigating; disbudding, stopping, and pruning; tying, training, and packing; manures, solid and fluid; soils, sands, and peat; tallies, ligneous, metallic, vitreous; traps for earwigs, birds, and mice; tiffany, nets, and bunting; knives, saws, and scissors (nothing said about tweezers);—these, with five hundred other matters, for our conversation takes an unlimited range, from a caterpillar to the Crystal Palace, pass rapidly before us, as we sit in conclave, "dreaming the happy hours away."

But for six nights in the year, at Christmastide, we have special subjects for the evening's consideration. Each member of "The Six of Spades" is called upon either to deliver a lecture, or to tell a story, in his turn, and our talk subsequently must have reference thereto. Here is our present programme, and a faithful chronicle of its realization shall be kept hereafter for the *Florist*:—

SIX OF SPADES.—SPECIAL MEETINGS, 1860.

Date.	Member.	Subject.
1st Evening.....	THE PRESIDENT.....	Rosa Bonheur.
2nd ,, 	MR. OLDACRES	The Lady Alice.
3rd ,, 	MR. CHISWICK	The Happiness of a Garden.
4th ,, 	MR. EVANS	Shows and Showing.
5th ,, 	MR. GRUNDY	The Burglary at the Grange.
6th ,, 	THE CURATE	Silent Preachers.

CHAPTER IX.

The President's Lecture—Rosa Bonheur.

My dear Brother Spades,—Like a herring-boat astern of the Great Eastern, I follow in the wake of grand examples, and commence my essay, as the first essayists of our "Times" are wont to do, with a topic very remotely connected with the chief theme of my history. For I have nothing to say concerning that wonderful French girl, who has painted, to our great surprise and delight "the Horse Fair," and "the Denizens of the Highlands," and have only borrowed her sweet name to serve as my text and motto—*Rosa Bonheur, Rose est Bonheur*, the Rose is Happiness, Felicité Perpetuelle, a thing of beauty and a joy for ever.

I go back in happy retrospect to the sunny days of childhood. I wander once more in bowery lanes, what time there were hedges in the land, and ere the face of nature was so closely shaved by the Mechian razor of improvement. It is the time of Roses; wild Roses, blooming fresh and fair, from cold soil and thorny stem, like wisdom and hope, from sorrow; wild Roses, lighting up the land with their pure starlike glory, and beautifying the gloom of a fallen world; wild Roses, on which Adam looks, as he toils with the sweat on his brow, and yearns at heart for Eden. It is the time of Roses; we pluck them as we pass, and make a coronal, nurse and I, for my sweet sister's golden hair. I see her now, enthroned upon some southward bank, where the Oxlip and the Violet have watched in their season the slumbers of the fairy queen, smiling through her tears, herself a dewy rosebud; for the briar has pierced her small tender hand, and her spirit has been startled, and has quailed awhile, at the presence and at the prescience of pain. Only a moment, for the breeze which gently stirs those golden tendrils, and bears away a crown jewel in that petal which flutters to the ground, is fraught with sweet scents and sounds, with frankincense rising heavenwards, and psalms from a thankful quire; and all things young and innocent must needs rejoice. Dear days of sacred gladness, fair hours of guileless love! I never see the wild Rose now, but I hear sweet whispers of their "tender grace," and I am wandering once more through the bowery lanes, with my little sister's hand in mine.

And next I remember those Roses of the garden, which, few and precious, were the delight of my early boyhood; the glorious "Provence," (that elegant individual, who first called this blushing beauty "Old Cabbage," ought to have been imprisoned for treason against the Queen of Flowers, and his diet restricted scrupulously to the humble esculent in question); the grand Provence, which came to us, as our Roses now, from the sunnier clime of France, the herald of a great and splendid army, the evening star, which glitters for awhile alone ere all the firmament is thick set with gems. Ah, my brothers, what a sublime astonishment and ecstasy must this Rose have caused, when it first arrived in our land! No ambassador, however copper-coloured, no hippopotamus, however far advanced in gestation, could educe such a sensation now. How the French florists must have shouted in exultation, "*magnifique*" and "*tres superbe*;" they who love truth and honesty, rejoicing in the justice of their praise, and they who love

to magnify and to gull "*ces Anglais*" (a class which, I am informed by buyers of new Roses, is not altogether extinct), annoyed by the difficulties of exaggeration, and moaning over their inability to lie. How the writers and singers of romance must have rejoiced in this fair reality! How gaily, with this flower in his cap, must the troubadour have touched his guitar! The brave knight wore it in his helm, I trow, the gift of his ladye-love, and while his adversary was gazing with wrapt admiration on it, saw his noble opportunity, and stuck his lance into his ribs. Ah me, what tender tones, what plaintive heart-music, what hopes and fears have been sighed over this Rose of Provence! Beauty hath made for it a second sunshine with her smiles, and Memory has shed upon its leaves her gentle rain of tears. How often hath this sweet messenger been made to tell unto loving hearts a language which they dared not speak! How often by lily hands have its petals been plucked and scattered in the wild hours of mistrust or jealousy, as Guinevere suspecting Lancelot,

" Brake from the vast oriel-embowering Vine
Leaf after leaf, and tore, and cast them off."

Let us ever, my friends, love the Provence Rose, not only for its own loveliness and sweetness, not only as the Rose par excellence of our boyhood, but as having been for more than two centuries the chief grace and glory of our English gardens, the fair favourite (as the Rose will ever be, I trust) in every grade and shire; what time upon holy altars, in the halls of kings, in the grand gardens of the nobility, among the few flowers of the farmstead and cottage, it found a place and throne.

Growing near "the Provence" in our garden I remember next a Rose, which came to this country together with it, or shortly afterwards, from Holland;* I mean the beautiful Moss; most beautiful, when, like some sweet infant, smiling out of its pretty head-gear of lace, or some young girl blushing to show herself before an admiring world, it first displays its loveliness "i' th' bud." You shall infer, if you please, my faithful fondness for this flower from a little incident, which occurred to me but a few months ago, and which I will now repeat to you. I had been a week in London, in the hightide of the season, and, thoroughly enjoying the pictures, and the music, and the pleasant society, proposed to remain for a fortnight longer, when one day, as I walked down Regent-street, I was addressed by an elderly Irishwoman, as a "swate gintleman" (a compliment which I was unable to return), and piously adjured, "for the love," &c., and "for the glory," &c., which, alas! meant only gin, to buy a beautiful nose-gay for the girl of my heart. As the locality referred to was not at the time occupied by any young lady in particular, but by a community of beauties, I was about to decline, on account of the quantity required, and the consequent expense to be incurred, when I caught sight of a cluster of Moss Rosebuds, which I had no power to resist. Perhaps their freshness and fragrance were enhanced by contrast with their unhandsome, not to say unpleasant purveyor; at all events, I bought them from her, and they were soon rejoicing in some fresh

* See Rivers's "Rose Amateurs' Guide," edition 6, page 8; and "Paul on the Rose," Division ii., page 32.

water, and expressing their gratitude in the little drawing-room of my lodgings, by the heightened colour of their complexion, and by the unreserved openness and general sweetness of their demeanour. It struck me, as I gazed, how far more beautiful they were than any of the elaborate works of art, for which I had deserted, in mid-summer, the country and the works of Nature; they seemed like messengers gently reproving me as unfaithful to dearest friends; they reminded me of purer pleasures; to be brief, they took me to King's Cross station, the very day after my purchase, to my own dear Roses, and my happy home!

S. R. H.A

(To be continued.)

CUCUMBERS.

THE following synonyms have been detected by the Fruit and Vegetable Committee of the Horticultural Society:—Butler's Extra Fine Frame the same as Manchester Improved; Godfrey's Black Spine, Hamilton's Surprise, Henderson's A. 1 House, York New Prolific, Slipper's Antagonist, Turner's Favourite, and Ward's Great Western, the same as Manchester Prize; Carter's Champion, Cuthill's Highland Mary, and General Canrobert, were the same; Lynch's Star of the West, Kiplin's Black Spine, and Monro's Prolific were the same as Sion House Improved; The Wonder and Robinson's White Spine were the same as Sion House; Captain Lorrain's, Infant, Market Prolific, and Pride of Scarborough, were the same as Champion of England; Cheltenham Surprise, Clapham Defiance, and Hunter's Prolific, were the same as Godfrey's White Spine; Garaway's Wonder, Sunderland Witch, and Webb's Imperial, the same as Sir Colin Campbell; Kelway's Perfection, Kelway's Hybrid Perfection, the same as Kelway's Defiance; Judd's Frame, the same as Kelway's Prolific; Hamilton's Hero of Thornfield, the same as Ipswich Standard; Himalaya and Minster Abbey the same; Masters's Viridissima and Wild's No. 2 the same as Mills's Jewess.

AMERICAN LAWNS.

IN one of your late numbers are some remarks on Lawns, in which says the "Gardeners' Monthly," among other things, it is remarked, "that grass will get poor and weak from constant mowings, in which case use wood ashes." This is excellent advice when you mow with a scythe, since as this requires the raking or sweeping up of the cut grass, it is very evident that something must be returned to the soil when so much is taken off every ten days or so.

I think, however, that the time is not far distant when the scythe will pass away and be no more seen, at least for ornamental purposes. When a lawn is once carefully prepared and managed, so as to present a fair smooth surface to the action of the lawn cutter, there is nothing I have ever seen to equal the perfection with which the machine works.

Shanks' lawn cutter, which I imported many years since, did wonders in its day; but on uneven or unequal surfaces, it was apt to gouge the sod or occasionally to skip over depressions. Green, in his new patent, by the addition of three simple little wooden rollers in front of the beaters (so-called), resembling in size and appearance three blacking or beer jugs, has entirely remedied all this difficulty, by carrying or lifting the cutter over any prominent elevation, and also by preventing any pitching into the ground, which a sudden start of the horse often caused.

As regards the disadvantages of the scythe—in the first place, it is not every one who can use an English lawn scythe, whereas the most inexperienced man or boy can use a machine.

Secondly; lawns must be cut with scythes early in the morning and late in the evening, when the dew is on—inconvenient hours in this country, when so much watering for houses and plants is required at those times in our ornamental places. The lawn cutter, on the contrary, works better when the dew is off, after nine or ten o'clock, thus giving up to the gardener those early and late hours, so valuable in his department.

Thirdly; after grass is cut with a scythe, the most tedious part remains—the sweeping up. If raked, as is usual in the United States, a large portion must remain behind, from coarseness of the rake; leaving a dead and decaying matter; preventing the full effect of the advantage of the cutting to be seen for two or three days, until the dry and woody part of the grass left by the scythe is surmounted by a new growth; for we must remember, in cutting with a scythe, the greener and more succulent parts are cut off, leaving them cut short, little more than stubble or woody stem, through which appears a mat of old fibrous decaying matter, the result of previous cuttings; each successive one adding its contribution of chopped hay—for it amounts to this.

Fourthly; as a large proportion of the grass which is cut every week or fortnight, manages to be got up, it is quite necessary to make some return to the soil by the addition of ashes or other manure.

Now, by the proper employment of the machine, the following result is obtained:—A weekly mowing, with the weight of the roller, (some 700 lbs. in the horse size,) produces a low flat growth of white clover, almost, apparently, without stems, and with the leaves resting close and flat on the ground; this is and must be, in this country, the substitute for the English bottom, which is moss. Above and through this layer of clover come up the slender and delicate spears, one or two inches high, of red top,—for after trying for many years every kind of lawn grass, I am quite satisfied nothing surpasses our road-side sod of white clover and red top,—the passing of the machine every four to eight days over the lawn, either by man or horse-power, cuts off simply the spear of red top and an occasional stray stem or leaf of clover, which has straggled beyond (above) the cutting gauge, (about three-quarters of an inch,) leaving the entire carpet of white clover untouched.

These snips of grass are thrown, by the revolution of the beaters, into a box, and consequently none fall upon the lawn; and there is no

necessity to employ either rake or broom. But as in the case of the scythe, as all growth is taken off every week, something to supply this consumption must be returned in shape of manure or food.

For some years after using my machine, though I was quite satisfied with the colour of the lawn, and the beauty of its smoothness, yet I was disappointed in its softness; it was rather like walking over a billiard table than a Turkey carpet, which is the sensation one experiences in walking over a lawn cut every ten days or so by a scythe. Some reflection and investigation led me to the conclusion that the softness of the lawn cut by the scythe, was simply the result of the constant mulching it received from the decaying grass left behind after each cutting and raking; I therefore came to this conclusion, that, by removing the grass box of the machine, and permitting the cuttings to fly in a sort of grassy shower, I should accomplish two important things:—first, give an elastic soft bottom to the grass by the weekly mulching, which is so fine and so short, and one-half to one inch high, that it soon disappears instead of remaining an unsightly and hay-coloured brown for most of the season under the grass; but also by mowing frequently, the short clippings disappearing in two or three hours, I returned to the soil all it produced and nothing more. In other words, the materials abstracted from the soil, entering into the formation of red top and white clover, were every week *entirely* returned to the soil, not partially, as in the case of scythe cutting, where the longest part is gathered and carried away, but the whole and entire produce of the lawn, year after year, is returned to the ground free from weeds and stimulus, thus entirely superseding the necessity of any other dressing or manure; while increasing annually the depth, verdure and softness of the lawn with an ease and success unparalleled, besides the great economy in time in having no grass to gather and carry away.

I have now tried this weekly grass dressing for two years with the most complete success, and am quite satisfied it is the only way to have, in this country, truly English lawns. In England it would not do, since the weekly cuttings in their cloudy moist climate would not disappear; but in our hot bright suns they all vanish in a few hours or so.

To do this, one must bear in mind the grass must be cut at least once a week, otherwise it would be so long that it would fall in piles and furrows, and by heating destroy the lawn underneath. It sometimes may happen, even in cutting once a week, that after very moist weather, the cut grass lies rather too thick in some places; if so, it must be scattered and dispersed with a broom.

Of Pine-apples the best smooth Cayenne came from Mr. Campbell. To do this, one must bear in mind the grass must be cut at least once a week, otherwise it would be so long that it would fall in piles and furrows, and by heating destroy the lawn underneath. It sometimes may happen, even in cutting once a week, that after very moist weather, the cut grass lies rather too thick in some places; if so, it must be scattered and dispersed with a broom.

Of Grapes, the best baskets of 12 lbs. Black Hamburgh came from Mr. Bailey, of Shardeloes. Ripley Queen. Of Grapes, the best baskets of 12 lbs. Black Hamburgh came from Mr. Bailey, of Shardeloes. Ripley Queen.

HORTICULTURAL EXHIBITION AT THE CRYSTAL PALACE.
A Show of Dahlias and Fruit was held here on Wednesday and Thursday, the 19th and 20th ult. and, considering the season, was well attended. The fruit, among which the miscellaneous collections exhibited by Mr. Bailey, of Shardeloes, Mr. Henderson, of Trentham, and

Mr. Frost, of Preston Hall, were conspicuous, and attracted general attention. The display of Dahlias was most extensive. The competition in nearly all classes was good; but it will be seen, as a general rule, that the old familiar names retain their position, despite the strenuous and laudable endeavours made to supplant them with new kinds; and it must be admitted that the collections shown, both by Mr. Turner, of Slough, and Mr. Keynes, of Salisbury, were in all respects splendid. The excellence of some other collections approximated closely to these, and the whole was highly deserving of credit.

The display of fruit was large; but some of the kinds, owing to the unfavourable weather we have experienced, was not in good condition. Grapes, especially black sorts, were, however, all that could be desired, and did credit to the eminent growers by whom they were produced.

Of miscellaneous collections of 8 dishes, the best came from Mr. Bailey, gr. to T. T. Drake, Esq., of Shardeloes, Bucks, who had Bowood Muscat, and Black Hamburg Grapes, a Providence Pine weighing 8 lbs. 1 oz., Red Roman Nectarines, Noblesse Peaches, Moorpark Apricots, Washington Plums, and a Melon. Mr. Henderson, gardener to the Duke of Sutherland, at Trentham, sent beautiful specimens of Black Hamburg and Muscat of Alexandria Grapes, Trentham Green-fleshed Melon, a large oval kind; a good Queen Pine-apple, Barrington Peaches, and Violet Hative Nectarines, and a nice dish of Morello Cherries. From Mr. Dawson, gardener to Earl Ccoper, Panshanger, Herts, came very fine Black Hamburg Grapes, Violet Hative Nectarines, Moorpark Apricots, Kirke's Plum, and some good Peaches.

In the class of 6 dishes, Mr. Henderson, gardener at Trentham, gained the first prize with fine examples of White Tokay and Black Hamburg Grapes, two Queen Pine-apples, Chancellor and Barrington Peaches, and Trentham Hybrid Melon. Mr. Bailey sent Bowood Muscat and Black Hamburg Grapes, Moorpark Apricot, Red Magdalen Peach, and a good Prickly Cayenne Pine-apple. From Mr. Frost, gardener to E. L. Betts, Esq., Preston Hall, Maidstone, came beautiful Black Hamburg and Muscat Grapes, a Queen Pine-apple, and Moorpark Apricots.

Of Pine-apples the best smooth Cayenne came from Mr. Cameron, gardener to the Duke of Richmond, at Goodwood; the second best a Jamaica, from Mr. Surmon, gardener to H. W. Dobell, Eltham; the third from Messrs. Weeks, Chelsea. The best Queen, in the opinion of the judges, came from Mr. Solomon, of Peckham Rye; but it was thought by many, that that which was placed second should have been first. The last was shown by Mr. Austin, gardener to Hon. R. Curzon, Tooting. Mr. Spivey, gardener to J. A. Houblon, Esq., showed a good Ripley Queen.

Of Grapes, the best baskets of 12 lbs. Black Hamburg came from Mr. G. B. Shoulls, Finchley; Mr. Harrison, Weybridge; Mr. Hill, gardener to R. Sneyd, Esq., Keele Hall, Staffordshire; Mr. Frost; Mr. Kay, Finchley; Mr. Solomon, Peckham Rye; Mr. Monro, Rabley, near Barnet; Mr. W. J. Childé, and Mr. H. Payne, gardener to J. Bedall, Esq., Broomfield Lodge, Chelmsford.

In the class of two dishes of Grapes the best came from Mr. Hill, of

Keele Hall, who contributed very fine bunches of Black Prince and Black Hamburgh; Mr. Little, Stoke Court, and Mr. E. Sage, gardener, Atherstone, also had good exhibitions.

Of White Grapes, which were as a whole not ripe, the best came from Mr. Frost, who showed six beautiful bunches of Muscat; Mr. Roberts, gardener to the Hon. Capt. Burry; Mr. Little, Stoke; and Mr. Reid, Sydenham, also showed Muscats.

For the largest bunch of Grapes the first prize was awarded to Mr. Payne, gr. to J. Bedall, Esq. This was a Black Hamburgh, quite ripe, and beautifully coloured, and weighed 8 lbs. 14 oz.; it was, however, not one bunch, but four, all springing from one eye. Other bunches of Black Hamburgh, weighing from 3 to 6 lbs., were also shown; and from Mr. Frost was a Barbarossa weighing 5 lbs., but it was unripe.

Among comparatively new Grapes were beautiful examples of Muscat Hamburgh from Mr. Bristow, Broadwater, Sussex; these were large, both in bunch and berry, and finely coloured. Mr. Spary had some good bunches of Marchioness of Hastings, but unripe; and from Messrs. Ivery came fine fruit of Buckland Sweetwater. Messrs. Lee showed Escholata superba.

Of Peaches and Nectarines there were a great many exhibitions; both were tolerably good, but small, especially the Nectarines. In the class of four dishes, the best came from Mr. Robinson, gardener to R. Benyon, Esq., M.P., Reading; Mr. Morris, gardener to J. White, Esq., Weatherfield, sent Royal George and Barrington Peaches, and Newington and Elruge Nectarines. From Mr. Kaile, gardener to Lord Lovelace, came Barrington and Noblesse Peaches, and Pitmaston Orange and Elruge Nectarines. Two very fine dishes were furnished by Mr. Dwerrihouse, gardener to Viscount Eversley, at Heckfield; the sorts were Violet Hative Nectarines and Noblesse Peaches; equally good dishes also came from Mr. Smith, gardener to V.C. Child, Esq., Bromley, who had Elruge Nectarines and Red Magdalen Peaches; Mr. Solomons sent two nice dishes, as did also Mr. Little, Stoke Court; from the last came Miller's Mignonne Peach and Elruge Nectarines. Mr. Ingram, gardener to J. J. Blandy, Esq., sent Violet Hative Nectarines, and the same named variety of Peach; and from Mr. Reid, gardener to J. Hunt, Esq., Sydenham, came Barrington Peaches and Elruge Nectarines.

Of Melons there were several fine fruit, especially from Mr. Bailey, of Shardeloes; Mr. Potter, of Woodbridge, and Mr. Elliott, of Lee. Among the best were Scarlet Gem, Egyptian Green-fleshed, Orion, and Bromham Hall.

Some remarkably fine Figs were shown, chiefly of the Brown Turkey and Brunswick varieties. These came from Mr. Robinson. We also noticed fruit of the White Marseilles from Mr. Spivey.

Cherries, large and fine, came from Messrs. Dawson and Snow; the kinds were Florence and Morello. Mr. Spivey likewise had good dishes, as had also Mr. Henderson, gardener to the Duke of Sutherland, at Trentham. From the last came Morello and Elton.

Plums were plentiful and good. The best came from Mr. Snow, who had fine fruit of Jefferson, Kirke's, and Greengage. From Mr.

Smith, Bromley, came Goliath, White Egg, and Washington; and from Mr. Kaile Magnum Bonum, Goliath, and Washington.

Apples, both dessert and kitchen sorts, were shown in great numbers. Of dessert kinds the best came from Mr. Frost, Preston Hall, whose varieties were Cox's Orange Pippin, Duchess of Oldenburgh, Kerry Pippin, Scarlet Nonpareil, Devonshire Quarrenden and Oslin. Mr. Holder, Reading, had Braddick's Nonpareil, Victoria, Ribston, Small's Golden Pippin, and Scarlet Nonpareil. From Mr. Spivey came Golden Reinette, Gravenstein, Downton Nonpareil, Kerry Pippin, Red Astrachan, and King of the Pippins.

In the class of kitchen Apples the best came from Messrs. Heather, Dwerrihouse, and Mortimer. Among the kinds were Golden Noble, Celina, Gloria Mundi, Hoary Morning, Codlin, Flower of Kent, Hawthornden, Alfriston, Hollandbury, Bedfordshire Foundling, and Yorkshire Greening.

Of Pears, Mr. Harrison, of Oatlands, Weybridge, sent as he always does magnificent fruit, consisting of Marie Louise, Gansel's Bergamot, Gratioli, Duchesse d'Angouleme, Hacon's Incomparable, and Louise Bonne of Jersey. From Messrs. Halley, Holder, Rattray, and Frost came also fine fruit, consisting chiefly of Williams' Bon Chretien, Chaumontel, Marie Louise, Passe Colmar, Beurre Diel, and Duchesse d'Angouleme. The best flavoured fruit was Louise Bonne, of Jersey, from Mr. Hawes, Oxon.

Of Dahlias there was a large display, and the blooms generally were in beautiful condition; those from Mr. Turner, of Slough, and Mr. Keynes, of Salisbury, were much admired, as before stated.

In the class of 50 dissimilar varieties, Mr. Turner, of Slough, was first with Lilac Queen, Pluto, Deutche, Norah Creina, Dr. Gully, Mr. Stockin, Harlequin, Sir G. Douglas, Duke of Wellington (Turner), Chairman, Warrior, John Dory, Earl of Shaftesbury, Hon. Mrs. Trotter, Lord Palmerston, Jenny Austin, Lord Cardigan, Golden Drop, Commander, Pre-eminent, Miss Pressly, Pioneer, Mrs. Pigott, Lord Taunton, Bravo, Cherub, Sidney Herbert, Miss Watts, Triomphe de Pecq, Mrs. Church, Midnight, Heroine, Grand Master, Lady Popham, Madge Wildfire, George Elliot, Mrs. C. Waters, Village Gem, Princess of Prussia, Etona, Hon. Mrs. Lindsay, Dinorah and 8 Seedlings; Mr. Keynes sent

Golden Drop, Pioneer, Cherub, Sidney Herbert, Disraeli, Miss Pressly, Duke of Roxburgh, Miss Watts, Wallace, Lord Palmerston, Lilac Queen, Sir G. Douglas, Commander, Royal Lilac, George Brown, Lady Popham, Lady Franklin, Lord Clyde, Mrs. Pigott, Rosebud, Chairman, Earl of Shaftesbury, Mauve, Grand Master, William Dodds, Pandora, Mrs. Vyse, Lady Douglas Pennant, Masterpiece, Seedling, Jenny Austin, Midnight, Dr. Gully, Malvina, Seedling, Rosa Bonheur, Touchatone, Hon. Mrs. Trotter, Lord Cardigan, Mrs. Critchett, Mrs. Church, Lollipop, Triomphe de Pecq, Tippy Bob, Compacta, Seedling, and four others; 3, Mr. J. Harrison, nurseryman, Darlington; 5 (equal), Mr. George Edward, York, and Mr. H. Legge, Edmonton.

In stands of 24 blooms, Mr. Turner again obtained the first prize with Mr. Stockin, Chairman, Earl of Shaftesbury, Hon. Mrs. Trotter, Warrior, Seedling, Lilac Queen, Pioneer, George Elliott, Village Gem,

Mrs. C. Waters, Lady Popham, Lord Palmerston, Miss Pressly, Princess of Prussia, Seedling, Golden Drop, Plato, Rosebud, Duke of Wellington, Heroine, Jenny Austin, Seedling, and Dinorah; 2, Mr. Keynes, with Golden Drop, Royal Lilac, Duke of Roxburgh, Jenny Austin, Lizzie Herbert, Pioneer, Chorub, Masterpiece, Mr. Critchett, Lady Douglas Pennant, Mrs. Vyse, Mr. Boshell, Mauve, Seedling, Chairman, William Dodds, Andrew Dodds, Earl of Shaftesbury, Lilac Queen, Mrs. Pigott, George Brown, Seedling, Rosebud and Mrs. C. Waters; 3, Mr. H. May, Bedale, Yorkshire; 4, Mr. George Edward, York; 5, Mr. John Sealey, St. George's, Bristol; 6, Mr. Thomas Bayliss, Wolverhampton.

In class 3, 12 Fancies, Mr. Turner took the first prize with Harlequin, Lady Paxton, Empereur de Maroc, Queen Mab, Seedling, Elegans, Elizabeth, Norah Creina, Countess of Bective, Pluto, Gloire de Kain, and a Seedling; 2, Mr. Keynes, with a Seedling, Souter Johnny, Lady Paxton, Seedling, Harlequin, Seedling, Fairy Queen, Jessie, Queen Mab, William Corp, Pigeon, and Alice; 3, Mr. George Edward, York; 4, Mr. H. Legge, Edmonton.

Amateurs' Class.—In stands of 24 blooms, the first prize was awarded to Mr. Dodds, of Salisbury, for Marquis of Bowmont, Golden Drop, Mrs. W. Fawcett, Chairman, Lollipop, Mr. Eckford, George Brown, Seedling, Mrs. W. Pigott, Seedling, Lady Popham, Seedling, Jenny Austin, Rosebud, Mrs. Church, Duke of Roxburgh, William Dodds, Seedling, Lady Douglas Pennant, Seedling, Cherub, Royal Lilac, Pioneer, a Seedling, and two others; 2, Mr. Cook, Notting Hill; 3, Mr. C. J. Perry, Birmingham; 4, Mr. John Davis, Peckham; 5, Mr. H. Thorneycroft, Floore; 6, Mr. R. Prior, Kensington.

In 12 blooms (Amateurs), Mr. W. Corp, Salisbury, was first with Chairman, Lord Palmerston, Golden Drop, Jenny Austin, Lady Douglas Pennant, Warrior, Cherub, Hon. Mrs. Trotter, Triomphe de Pecq, Lilac Queen, Mrs. Pigott, and Sir G. Douglas; 2, Mr. W. Dodds, Salisbury; 3, Mr. Thos. Hobbs, Bristol; 4, Mr. John Cooke, Notting Hill; 5, Mr. John Loffley, Brigg; 6, Mr. Robert Hopkins, Brentford; 7, Mr. Thomas Dickenson, Hilperton. *Extra*: Mr. Thomas Goodwin, Holgate, York; Mr. E. Howe, Bromley; Mr. C. J. Perry, Birmingham; Mr. John Sladden, Ash by Sandwich.

In class 6, 12 Fancies (Amateurs), Mr. W. Dodds was first with Highland Mary, Lady Popham, Cleopatra, Souter Johnny, Mary Lauder, Garibaldi, Seedling, Leopard, Seedling, the Flirt, and two Seedlings; 2, Mr. C. J. Perry, Birmingham; 3, Mr. W. Corp, Salisbury; 4, Mr. Thomas Goodwin, Holgate, York.

As regards Seedling Dahlias, a Certificate of Merit was awarded to Beauty of Hilperton, crimson edged with lilac, a large bold flower. This came from Mr. T. Dickenson, gardener to B. J. Edwards, Esq., Hilperton, Trowbridge. Ditto to Joy, pale lilac, heavily tipped with purple; a small flower of good form, and very novel. This was shown by Mr. George Rawlings, Globe Road, Bethnal Green. Ditto to Marquis of Bowmont, a large bold lilac flower from Mr. Dodds, of Salisbury. Ditto, to Masterpiece, crimson, with lilac tips; a small, compact, well-formed flower, close high centre, and novel, from Mr. Keynes, of Salis-

bury. Ditto, to Andrew Dodds, a crimson flower from Mr. J. Keynes. Ditto, to Princess of Prussia, from Mr. Turner, of the Royal Nursery, Slough. Etona, General Turr, Elegans, and Pauline, were also most promising flowers: the latter two are Fancies.

Exhibitions of Asters were numerous and extremely interesting. The German or Quilled, by R. H. Betteridge, Esq., of Milton Hill, and the French, by Mr. Sandford, of Walthamstow, were particularly fine. There were likewise some good single blooms of Hollyhocks, but these should be shown in spikes, to be able to judge correctly respecting their merits. Verbenas were also plentiful.

Of Roses, Messrs. Paul, Keynes, Francis, and others sent boxfuls, in which were blooms of Souvenir de Malmaison, Prince Leon, Baronne Prevost, Madame Masson, Auguste Mie, Jules Margottin, Pius the Ninth, Duchesse d'Orleans, Géant des Batailles, Safranot, La Reine, Solfaterre, Duchess of Norfolk, Gloire de Dijon, Odier, Madame Cambacères, General Jacquemmot, William Griffith, General Castellaine, Niphotos, and Devoniensis.

Beautiful Bouquets of Gladioli were shown by Mr. Standish, Messrs. Youell, and others, arranged in lines on both sides of the tables, and made a fine display. The sort was chiefly Brenchleyensis.

Of Phloxes there was a beautiful display. The first prize was awarded to Mr. Turner, for Julie Roussel, Mr. Punch, Victor Hugo, Orion, Madame Marceau, Madame Jolly, Madame de Chambry, Blanche, Belle Etoile, L'Enfant Prodigue, Mareschal Govain St. Cyr, and Madame Rougier; 2, Mr. Standish, Bagshot.

On the whole, this Exhibition must have been highly satisfactory to its promoters and supporters, and afforded a rich treat to those who witnessed it.

STANDARD ROSES.

It will, I think, be generally conceded that good taste has progressed quite as much in ornamental gardening as in those other branches of the decorative art which pertain to buildings, furniture, and manufactured articles, if it has not taken a step in advance. It becomes therefore a legitimate object for enquiry, whether ornamental gardening is entirely free from all innovations on good taste; and on looking round to ascertain what I should commence with, the most glaring object which caught my eye is, unfortunately, that which heads my article—the standard Rose.

I fancy your invaluable correspondent, "S. R. H.," who writes so sweetly about the Queen of flowers (should he deign to read this), will exclaim, when he gets so far—what is the barbarian driving at? And that that worthy champion of the Rose, the Rev. W. F. Radclyffe, will throw down the number in disgust, when he finds I am about dealing a heavy blow at his favourites—and for aught I know, the worthy "D." of Deal, may ransack the lists of floriculturists, to ascertain who the Goth is who has the temerity to condemn what all extol and admire—by way of getting my name expunged from all connexion

with floriculture. But I must ask them to keep their judgment in suspense until they have heard all I have to say; for I, too, love the Rose, and it is because I admire it so much that it pains me to see it treated unnaturally, and forced into a position for which nature never intended it, and also because I consider the standard Rose, when it forms a part of ornamental gardening, is frequently as opposed to good taste as it is to the natural habit of the plant.

When first standard Roses were introduced to British gardens they were considered as pretty conceits, and to them the choicest spots were appropriated. I remember a noble lord in one of the midland counties planting £1000 worth in one season. Novelties in gardening, as in the world of fashion, are very contagious, and hence nurserymen are obliged to keep the larger part of their Rose stock as standards; and hence, too, we see standard Roses in every garden, and in nearly every position. As I am, however, dealing with them only as decorative objects, I consider them now in that light only; and to be fair and candid, I must admit, at the onset, that there are a few varieties included in the section of climbing Roses which are much more ornamental worked as tall standards than when grown as dwarfs; these, when trained downwards, or allowed even to form natural weeping heads, are really valuable additions to garden scenery in some situations. In arranging the details of the geometric or natural style of gardening one great object to attain is to have all the principal features permanent ones. Looking at the standard Rose from this point of view, there is but little that we can say in its favour, for nine months of the year; it has seldom a handsome head, and when out of bloom, if not positively ugly, has but few features which recommend it,—none which compensate for its formal and naked appearance during so long a period. But then, it may justly be said, What! banish the Rose, the Queen of the parterre herself, from the garden? Oh, by no means; I would introduce Roses more largely than even now, but I would certainly reject them in the shape of standards, unless other arrangements accompanied them, to hide their naked stems; for to me there is nothing more objectionable in a well-kept flower-garden, during autumn, than rows or single specimens of standard Roses, with their stiff formal heads, scarcely any two of which are alike. If we compare them with standard Rhododendrons, Bays, or Portugal Laurels, their inferiority is at once seen. The evergreens are massy and compact, producing distinct features, while the Rose is thin and straggling, or stiff and formal. I repeat again, the Rose is altogether in a wrong position, so situate and so grown. Let us see how she may contribute her unequalled charms of loveliness and fragrance without offending the eye of taste by her appearance. My idea is, that to see the Rose when in bloom to the best advantage, the principal bloom should either be beneath the eye or sufficiently high above it to fall within the focus of vision when standing at a moderate distance. For the latter purpose, no better form of training the Rose can be suggested than that of pillars formed of stout poles; or what is much more artistic and architectural, upright iron trellises, in the shape of circular columns, or a graceful curved line, which would have a highly ornamental appearance when

covered with Roses. These Rose columns may be from eight to ten or even twelve feet high. I would have them 18 inches or 2 feet in diameter at the narrowest part, which would allow for three or four Roses to be planted against each, so that the entire column, from the ground upwards, should be covered, the main shoots being tied close in and the flowering ones partly so, according to their habit. These columns would form grand objects when covered with bloom; and from their architectural character would always be agreeable as parts of geometric gardens, to accompany long promenades, alternating either with fastigate or round-headed trees, or even as single specimens for lawns. For the latter situation rustic poles connected with iron hoops would be equally suitable and less costly.

The number of Roses adapted for pillars is now so great, that a great variety of colour could be given to each; the preparation for them to grow in should be extensive and rich, and during the blooming season liquid manure may be applied almost *ad libitum*. Single arches thrown over walks, or in a continuous arcade, is another form of training the Rose, admirable in many respects, but requiring a more climbing habit in the Roses employed than what may be planted for pillars.

I next come to beds of Roses, which are most effective when overlooked by the eye, especially if the beds are near the walk or point of vision; if at a distance greater latitude may be given. Here low standards may be used for the centre of the group, planted round with dwarfs, those nearest the centre being arranged so as to hide the stems of the standards. I have seen Roses admirably managed by planting them in beds 4 feet over, with three 5 feet stakes in the middle, to train the centre plants to, and the outsides planted with dwarfs, training them to grow so as to come down to the Grass, or Ivy border, and fill up the space between the staked Roses. When viewed from a distance they had the appearance of a truncated cone; if nicely tied in and kept within bounds, this plan merits attention. The edging of Ivy round the beds should be kept to about 12 inches in height, when it entirely hides all appearance of the naked earth of the border, unless when very near, and makes a good finish to the group, which can be manured and watered at pleasure.

If standard Roses are to be employed at all, they should not be worked on stems more than 3 feet high; of this size they are much more pleasing to the eye, and more easy to keep in health and vigour. I remember seeing in a French garden a row of Roses planted down a long border close together; the Roses had stems about 2 feet 6 inches high, and they formed the centre of two beds on each side a long avenue; being fronted with Gladiolus, Asters, Geraniums, &c., the effect was very good indeed.

Having disposed of the Rose in ornamental gardens, there is neither limit nor restriction as to form and mode of cultivation when grown for floricultural purposes. But even here something may be learned by seeing how elegant shapes and fine blooms may be combined together, by witnessing the way such growers as Messrs. Paul, Lane, and others manage their plants in pots.

G. F.

HORTICULTURAL SOCIETY.

August 2.—This was a Special Meeting held at Chiswick, for the purpose of inspecting the plants for trial growing at the garden; and various annuals which were in a sufficiently advanced state were examined. The details of the examination of these plants, as of the other groups grown for trial, will be reserved for special reports, to be prepared hereafter; the following being, however, some of the most important determinations:—

Collinsia bicolor candidissima, fine dark Candytuft, *Erysimum arkansanum*, *Clarkia pulchella pulcherrima* and *C. p. integripetala*, *Lupinus Dunnettii superbus*, Dwarf French Orange Marigold, and *Viscaria oculata nana*, were considered to be desirable and ornamental kinds, and when true of the first order of merit as annuals.

A deep blue *Lobelia*, considered to be a good form of *speciosa*, was pronounced the best of the dwarf bedding kinds of this family; and *L. gracilis rosea* (Lindleyana of some) was considered a desirable rosy-lilac variety, useful on account of its distinct colour.

Of the varieties of *Achimenes* which were in a blooming state, the following were selected as the most desirable of their respective colours: Large-flowered group; *Ambröse Verschaffelt*, *Belmontiensis*, *Dentoni-ana*, *Edmond Boissier*, *Estelle*, *Francois Cardinaux*, *Georgiana discolor grandiflora*, *Jaureguia maxima*, *longiflora major*, *Margarettae*, *Parsonsi patens major*, *Sir Treherne Thomas*. Small-flowered group; *carminata splendens*, *Dazzle*, *Dr. Buenzod*, *ignea*, *Meteor*, *rosea elegans venusta*.

The Variegated *Begonias* were also examined, and the following selected as the best and most distinct varieties:—*Roi Leopold*, *ricinifolia maculata*, *splendida argentea*, *Marshallii*, *Rex*, *Rex Leopardina*, *Queen of England*, *Reichenheimii*, *Regina*, *Roylei*, *nebulosa*, and *Griffithii*.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—Plants of the former which are backward in forming their bloom-buds should still be kept as close and warm as can conveniently be done, but any specimens which incline to make a too free or luxuriant growth should be sparingly supplied with water at the root, giving no more than may be deemed necessary to prevent the foliage being injured. Plants which have made but a short, weakly growth, however, should be treated as kindly as circumstances will admit, syringing them overhead every afternoon, and attending carefully to them with water at the root, &c. Young plants which were stopped late in the season should also be afforded every encouragement, until they make a nice, strong, regular growth, and unless it may be desirable to bloom any new kinds for the purpose of judging as to their value, it will hardly be advisable to force young plants to set bloom after

this season, and those which make a good, strong, regular growth, without setting for bloom, will grow much more freely next season than they would do after blooming freely. Plants in heat, which are well and regularly set, should be removed to a cool house, but do not expose them suddenly to a current of cool air. See that all are clear of black thrips. Take advantage of the first opportunity to get any plants which require it tied, so as to make them as neat and trim as possible for the winter. Any of the Camellias which have been out-of-doors had better be placed under glass at once, as there is some danger in getting the balls saturated with wet at this season. See that the whole stock of these is free from scale, and that the foliage is clean and bright, and also look to the drainage of plants that have not been repotted recently, and see that the water is percolating freely through the soil. *Conservatory.*—Thin out twiners on the roof, so as to admit all the light possible, and keep hardwood and other valuable plants in the most favourable positions, and do not overcrowd these. Give the beds and borders, if at all dry, a liberal soaking of water, but those occupied by plants in a partially dormant state should be kept rather dry, especially in the case of such things as are scarcely hardy in this house. See that everything is free from insects, and endeavour, by judicious and tasteful arrangement of the plants and perfect cleanliness, to compensate for the absence of any great display of bloom. Ventilate freely on every favourable occasion, unless the gaiety of the house principally depends upon plants brought from the stove, and in such cases it will be necessary to keep the house rather close, and also to use a little fire-heat at night when the weather is cold. If not already done, Hyacinths and other Dutch bulbs should be procured and potted, using very rich light soil, and placing the pots either in a cold frame or on a dry place out-of-doors, and covering them some three inches with any light porous material. These are exceedingly useful for blooming in winter and early spring, occupy little space only while in bloom, and save the necessity of forcing more valuable plants; hence, abundance of these should be provided, wherever there is a large demand for flowers in winter or early spring. *Cold Frames.*—Cinerarias should now receive every possible attention. Repot plants which are sufficiently rooted, using a rich compost. Attend carefully to watering, keep the plants near the glass, and do not overcrowd them, and give air freely. Look after aphids and mildew, and smoke carefully on the first appearance of aphids. Calceolarias should also be carefully attended to, using every means to get the plants well established before the end of this month. Most of the hardwood plants will have completed their season's growth, and such things as Boronias and other rather tender subjects will be better placed near the glass in the greenhouse, where they will ripen their wood sooner than in pits, but do not expose such as have been kept close to a through draught. Water very carefully, and more sparingly as the plants become less active. Give air freely on every favourable occasion to Heaths and other hard-wooded plants left in the pits, but shut up at night when there appears to be any danger of frost. Proceed with repotting and tying any plants which require such attention as fast as time can be found for this work, and endeavour to have the whole

stock as trim and neat as they can be made. *Flower Garden*.—Get in an ample stock of *Calceolaria* cuttings before the plants are injured by frost. If placed in a cold frame, shaded and kept close while the weather is bright, these will root in course of the winter, and be ready for potting off by March. Pot off rooted cuttings of *Verbenas*, &c., and endeavour to get the whole stock of such things well established in their winter pots as early as possible. See to putting in a good stock of cuttings of *Hollyhocks*, if not already done, but these will hardly root at this season without the aid of a mild bottom heat. Get up *Golden Chain* and other variegated *Geraniums* before they are injured by frost, and last autumn and spring-struck plants of all the *Scarlets* should be preserved, as these will bloom earlier and freer next season than younger plants. Avoid lifting anything, however, as long as can be done with safety, and while any bloom worthy of notice remains keep the garden as neat as possible. Any alterations projected about the grounds may now be proceeded with, and those which involve the transplanting of large shrubs or trees should be proceeded with as expeditiously as possible, for the first fortnight of this month is probably as good a season as any period of the year for this work. *Greenhouse*.—If any of the inmates of this house are still out-of-doors, they should be placed in their winter quarters without delay. First, however, have the house thoroughly cleaned, well washing the stages, paint, &c., and especially the glass, so that there may be no obstruction of light during the winter. Do not stand the plants too close, and rather than be forced to run the risk of injuring fine specimens by standing them too close to each other, get rid, by some means, of as many of the least valuable as will allow ample space for those retained. Ventilate freely on every favourable opportunity, but shut up at night when there is any danger of the thermometer sinking below 40° . Look out for mildew on *Heaths* and other things subject to be attacked by this pest, and apply sulphur immediately it is perceived. Water carefully, especially plants in a dormant state, and keep these rather on the side of dryness, but when they are watered give enough to thoroughly moisten the whole of the ball. Repot any of the specimens which require more pot room, and get all neatly tied, so as to make them as interesting as possible for the winter. *Stove*.—Attend carefully to the stock of plants for winter blooming, such as *Begonias*, *Justicias*, *Gesneras*, the showy *Euphorbia jacquini-flora*, &c., and the beautiful *Calanthe vestita*, which is in every respect one of our very best winter-blooming plants. Many plants, such as *Allamandas*, *Cleodendrons*, *Stephanotis*, &c., may be removed to an intermediate house, where the temperature will not be allowed to sink below 50° , and these will do better for the present in this temperature, with a dry atmosphere, than in the stove. Plants with ornamental and variegated foliage should now be brought into prominent situations. Look after insects of all kinds, and persevere in the destruction of these. Keep the foliage of hard-wooded plants clean.

Hardy Fruit.—Owing to the lateness of the present season, the time for gathering the winter fruit will be late in proportion; therefore, it will be advisable not to be in a hurry with this operation. The long

keeping Apples and Pears should be allowed to remain on the trees as long as the weather appears to favour their maturity, or they will hang without dropping; indeed, it is preferable to lose a few in this way than to gather too early. Of course, the earlier kinds will require watching and gathering when ready. Great care should be taken not to bruise the fruit, especially the finer sorts of Pears, which should be laid singly on the shelves, and not again moved till they are fit for table. Air and light should be admitted to the fruit store for two or three weeks after the fruit is gathered, to allow the moisture given out by the fruit to pass away, after which time it is best to entirely close the store, taking care to remove decayed fruit at all times. Gather Filberts and Walnuts; dry them well before storing them in boxes or jars for use in winter. Expose late Peaches wholly to the sun by removing the leaves from the fruit, and cover at night if frosty. Continue to clear out all runners, &c., from Strawberry beds, and get the ground about the plants forked over before the month is out. New plantations may still be made. All kinds of fruit trees may be planted as soon as the leaf is off or partially dropped. It is not advisable to remove them sooner, more especially large trees, as the leaves will evaporate more moisture than the roots can supply, and the young shoots will be injured by shrivelling. Plant Raspberry canes, and propagate Gooseberries and Currants. *Peach-house*.—If the leaves are entirely clear from the trees in the early house, they may be pruned towards the end of the month and the borders forked over, using a dressing of dung and loam if the trees are in a weak state. *Vinery*.—Still continue to give fire-heat to any late Grapes that are not properly matured, and keep a dry airy atmosphere to those that are ripe, with a little fire occasionally in damp weather, to dry the house. Look over the bunches often, and remove any decayed berries. If very early Grapes are required, the Vines in the early house may be pruned, and prepare to close the house by the end of the month. *Cucumbers*.—Shift those sown last month into large pots or boxes, using free turfy loam mixed with rotten manure. Keep up a night temperature from 65° to 70°, with plenty of air through the day, to get the plants strong and hardy, so that they may better withstand the dark foggy days we may look for next month. Success in growing winter Cucumbers mainly depends on the watering—for, if the plants get soddened, they will not long remain healthy; they should be allowed to get *dry* once a week or at most ten days, and then a watering of liquid manure given them. Sow again for succession. If any Melons remain unripe, give fire-heat if the pits are so heated, otherwise the linings should be attended to. *Pines*.—See previous directions. *Kitchen Garden*.—Keep the hoe moving in dry weather among all crops and in every part of the garden. Remove all decayed vegetable matter; cut Box edgings; clean walks, and make all clean before the bad weather sets in. Plant Cauliflowers under handglasses, and prick out the small plants in a cold frame for spring planting. Plant out Hardy Hammersmith and Brown Cos Lettuce. Sow in frames for spring planting. Plant the main crop of Cabbage, and prick out the small plants that remain on a sheltered border, to winter. Tripoli Onions may also be planted; these require

rich light soil. Tie up Endive as required for use. Earth up Celery and Cardoons ; this must be done when the plants are dry. Take up Dioscorea roots, Carrots, Parsnips, &c., and store in sand. Cauliflowers coming into use should be protected from frost by breaking down the leaves over the heads, or by taking them up and placing them in pits.

FLORISTS' FLOWERS.

Auriculas.—Great care and attention is now required to keep them clean. All decaying leaves should be taken off, and water more sparingly given, for they are almost at rest during the winter, and therefore an over supply at this season would be injurious. The cold summer has been much in their favour, and to it I attribute the scarcity of autumnal blooms. The only ones that have attempted it with me are a few that were not shaken out of their roots entirely. Hear you that “ Φ ?” By the middle of the month at latest let them be in their winter quarters. Those who have not regular stages will find coarse gravel a very good substratum for the pots in their frames. *Carnations and Picotees*.—Pot the layers as soon as rooted. To those with whom room is no consideration, one in a pot is the best plan ; with those more restricted, a pair may be put into 4-inch pots. Use plenty of drainage. I always use the stuff in which they have been growing. After potting, keep them close for a few days ; but afterwards let them have plenty of air, but no rain. *Dahlias*.—Those who raise seedlings will now have their hands busy in marking those worthy of a second trial. Let it be borne in mind what an advance has been made. I saw blooms the other day at the Floral Committee of the Horticultural Society, passed by, that two years ago would have commanded attention. The bloom this year has not been a satisfactory one, and the plants are so full of moisture that they will require careful watching when frost comes. *Pansies*.—These should now be in their pots for the winter. The cuttings taken off late form the best plants for blooming, and single stemmed stubby ones are *the* thing required now. Let the pots be well drained, and a good wholesome *loamy* compost used. *Pelargoniums*.—The treatment of these will vary, as to whether one is an exhibitor or not. Those for early showing should have had their final shift some time—those for later need not have it until the end of the month ; but, under any circumstances, they are wanted to make their growth *now*, so that in the spring they may work away for blooming. Avoid keeping them out of doors. If the weather be cold or damp, a little fire will do no injury, though they should have air as well. Fancies require more warmth. *Pinks*.—The beds should now be completed. If the soil is not suitable, they should be prepared—one part cow dung or Cucumber frame manure, one part loam, one part garden mould, and a little sand, forms a good compost. For further particulars see leading article.

D.

rich light soil. The up Endive as required for use. Earth up Celery and Carbons; this must be done when the plants are dry. Take up Dioscorea roots, Carrots, Parsnips, &c., and store in sand. Cauliflowers coming into use should be protected from frost by breaking down the leaves over the heads, or by taking them up and placing them in pits.

FLORISTS' FLOWERS.

Auriculas.—Great care and attention is now required to keep them clean. All decaying leaves should be taken off, and water more sparingly given, for they are almost at rest during the winter, and therefore an over supply at this season would be injurious. The cold summer has been much in their favour, and to it I attribute the scarcity of autumnal blooms. The only ones that have attempted it with me are a few that were not shaken out of their roots entirely. Hear you that "Φ?" By the middle of the month at latest let them be in their winter quarters. Those who have not regular stages will find coarse gravel a very good substratum for the pots in their frames. *Coronations and Pinks*.—Pot the layers as soon as rooted. To those with whom room is no consideration, one in a pot is the best plan; with those more restricted, a pair may be put into 4-inch pots. Use plenty of drainage. I always use the stuff in which they have been growing. After potting, keep them close for a few days; but afterwards let them have plenty of air, but no rain. *Dolans*.—Those who raise seedlings will now have their hands busy in marking those worthy of a second trial. Let it be borne in mind what an advance has been made. I saw blooms the other day at the Floral Committee of the Horticultural Society, passed by, that two years ago would have commanded attention. The bloom this year has not been a satisfactory one, and the plants are so full of moisture that they will require careful watching when frost comes. *Pansies*.—These should now be in their pots for the winter. The cuttings taken off late form the best plants for blooming, and single stemmed sturdy ones are the thing required now. Let the pots be well drained, and a good wholesome loamy compost used. *Pelargoniums*.—The treatment of these will vary, as to whether one is an exhibitor or not. Those for early showing should have had their final shift some time—those for later need not have it until the end of the month; but under any circumstances, they are wanted to make their growth now, so that in the spring they may work away for blooming. Avoid keeping them out of doors. If the weather be cold or damp, a little fire will do no injury, though they should have air as well. *Pinks* require more warmth. *Pinks*.—The beds should now be completed. If the soil is not suitable, they should be prepared—one part cow dung or Cucumber frame manure, one part loam, one part garden mould, and a little sand, forms a good compost. For further particulars see leading article.



Gladiolus.

1. M^{rs} Standish. 2. M^r Standish.

Plate 170.

Printed by C. Chabot.

GLADIOLI.

JOHN STANDISH AND MRS. STANDISH.

(PLATE 170).

THESE two very beautiful Gladioli are hybrid seedlings raised by Mr. Standish of Bagshot, who has upwards of 15,000 or 20,000 other hybrids that have flowered for the first time this season; and, strange as it may appear, these hybrids are superior to the French kinds; they are of finer shape, brighter colour, and far more hardy. The frost which we had in the first week of October has cut up our French friends in such a manner that they hang and droop beyond all hope of recovery, while "the Britishers" are coming out with a force only known to a true-born Briton. At this present time, Oct. 25, many hundreds of Bagshot Gladioli are to be seen in full flower at the Royal Nursery; more than this, there are hundreds of others yet to bloom; altogether they make such a show as has never yet been seen in the way of Gladioli.

There are many advantages in favour of Gladioli; they last a long time after they are cut, thus being first rate for room decoration; another good point in their favour is, that they flourish in poor soils—they grow anywhere, or may easily be made to do so. We could give directions, after reading Mr. Standish's catalogue, that might appear to be our own, but we prefer referring our readers to the fountain-head, and there, in spite of copyright, we copy his directions verbatim.

To grow this very handsome tribe of plants in perfection, the bulbs should be planted in a light sandy soil; if very poor, a little leaf-mould or *a very little highly decomposed cow-dung* may be added. Where the above cannot be had, and the soil is a stiff loam, one half should be burnt and thoroughly broken to pieces, then mixed with the other, this will grow them well. The bulbs should not be planted earlier than the middle of April, nor later than the last week in May: and when ripe, which will be from the beginning to the end of October, they should be taken up and dried off rather quickly—else, like Onions, they are apt to turn mouldy at the roots,—after which place them in thoroughly dried sand in a cool dry situation, away from frost, until planting time.

Having now given such plain rules and directions, we add the names and characteristics of twelve first-class sorts, at the same time be it remembered that all the hybrid seedlings have not yet bloomed; we will not, therefore, pledge our reputation that Mr. Standish may not out-Standish Standish:—

JOHN STANDISH, bright crimson scarlet, with a white feather in two petals, very fine shape.

SAMUEL WAYMOUTH, brilliant scarlet, with fine yellow centre, distinct, very beautiful.

DR. BLOUNT, the finest scarlet, deep plum coloured eye, white throat, with plum coloured feathers.

SENIOR JACKSONI, bright yellow.

GARIBALDI, deep scarlet crimson, violet centre and throat.

THE REV. JOSHUA DIX, very bright scarlet, a first class flower; the finest red out. This obtained a First Class Certificate from the Horticultural Society.

MRS. STANDISH, clear paper white, rich deep velvet puce, all the petals striped, fine shape, very striking.

MINERVA, clear white, with pink feathers and throat.

DIANA, white, edged with puce, feathered with the same, fine form.

BELLE OF BAGSHOT, white centre, violet feathering on light golden ground, very pretty.

PONIATOWSKI, very beautiful, deep rich rosy cerise, the two inside petals rich yellow, with claret blotch; a very brilliant flower.

DUCHESS OF SUTHERLAND, white, large fine shaped flower, plum throat and feathering.

VISITS TO NURSERIES.—No. III.

MR. WILLIAM PAUL'S CHESHUNT NURSERY, WALTHAM CROSS.

VISIT a Rose nursery in October? Why not? I used at one time to think Hybrid Perpetuals were all a "mockery, delusion, and a snare," but I do not think so now. Is it not worth a whole bushel of Roses in *the* Rose season to be able to go out into your garden in the middle, or even at the end of this month, and cut two or three beauties—a Eugene Appert, Jules Margottin, and Madame Vidot—and place them in dainty little vases on your mantelpiece or console table, to hear the astonished exclamations of those who see and smell them, that such Roses can be had at this time of year, to tell the shade of Tom Moore that he was wrong when he wrote about the "Last Rose of Summer," for that they prolong their beauties far into the wintry month of November. Yes, I trow it is, and there can be no question of the immense gratification that they afford all real lovers of the Queen of Flowers; nor must we omit the contributions that the Tea Roses give to us. Oh! to catch a good bloom of *Devoniensis*, *Gloire de Dijon*, or *Souvenir d'un Ami* now! How much is their beauty enhanced by the condescension of blooming when all around tells of "fading away." Such being my feelings, and knowing that Mr. William Paul was starting afresh at Waltham Cross, despite of wet and mud, trifles when one is in earnest, I found myself, one dirty day last week, at the Waltham Cross station of the Eastern Counties Railway, a railway against which more abuse has been levelled than has fallen to the lot of any other similar institution, and which I am bound to say has been as richly deserved as it has been freely bestowed. On the day in question, I should gladly have spent two or three hours longer at Cheshunt but I dreaded to rely on its proverbially faulty arrangements, and it was well I did; for the train in returning was *only* one hour behind its time, as if the company were unwilling to allow the passengers too rashly to rush into all the enjoyments of the

Shoreditch terminus. As, however, it is giving facilities to Mr. Paul to carry out his plans, perhaps I had better moderate my language about it. "But Waltham Cross," some one may say, "I thought Cheshunt was the seat of the Rose nursery of Messrs. Paul." *Ah, nous avons change tout cela*, or, rather, both are correct. The facts are simply these: since the death of Mr. Paul, sen., thirteen years ago, the nursery at Cheshunt has been carried on by the two brothers. Circumstances having arisen that made it seem more desirable that they should separate, it has been arranged, in a brotherly way, without that ready resource of quarrelsome people, law proceedings, the elder brother remaining at Cheshunt, and Mr. William Paul occupying, in addition to one of the old Cheshunt grounds so long celebrated, the new grounds which he has purchased in the vicinity of the Waltham station.

If Mr. Rivers be the Nestor of Rose-growing, we must put down Mr. William Paul as its Achilles. He has ventured boldly into print, has favoured the public with various publications on the subject, and has tended as much by his pen (which, by the bye, Achilles did not wield), as by his active exertions, to bring the Rose prominently before the public; and, from what I saw, think that we may be prepared to look forward in two or three years to one of the most complete nurseries of the kind in the neighbourhood of London. The object which Mr. Paul contemplated, and in which he has succeeded, was to obtain a piece of ground of easy access to the railway, and of suitable soil for both Roses and fruit-trees, as well as the general requirement of a nursery. The plot, which he has laid out for this purpose comprises about thirty acres in a ring fence, stretching from the railway to the village of Waltham Cross. Anyone who knows the Slough Nursery will be able to form an accurate notion of the lay of the grounds, as they are very nearly similar. Nor are they simply good; they are in a situation of great beauty, surrounded by meadows clad in verdure, and dotted with farm-houses and foliage; in the distance the hills of Epping Forest, now brilliant with their grand autumnal tints, and at about half-a-mile off the old Abbey of Waltham, said to be the burial-place of our last Saxon king—Harold; the whole forming one of those sweet pictures of English scenery in which the county of Herts abounds, and which we in vain look for in any other country. But mere beauty would not be sufficient, were there no other advantages—were not the soil good, or the means of access easy; but Mr. P. has been fortunate in obtaining these material advantages as well. The soil is a good loam, of about three feet in depth, resting upon gravel; on the lower part of the grounds it is of a friable texture, which is admirably adapted for fruit-trees, while the upper part is of a rich, unctuous, *buttery* loam—the very soil Roses rejoice in. And as to access, there is a private entrance from the railway platform at the Waltham Station; and to those who may choose to drive from London, through the "green lanes" which Charles Lamb has so eloquently, in his chatty way, descanted on. The other end of the nursery abuts on the street of the village of Waltham Cross, well known as containing one of the few remaining crosses which were once so numerous, and erected by that great king, Edward I., to mark the various resting-places of the corpse of his devoted Queen, on

its way for interment to Westminster Abbey. Stretching from one end of the grounds to the other, a broad avenue is in course of formation, the centre of which will be laid down in Grass, with on either side a broad border, on which will be (and, indeed, in some cases already are) planted choice specimen plants of Conifers, the spaces being filled up with bedding plants of various kinds. Outside these borders, again, will be gravel-walks, on which, during wet weather, visitors may walk, instead of on the damp Grass. When this avenue is completed, it will have a very noble appearance, and will certainly be the characteristic of the grounds. At the end of it a private path leads to the platform of the Waltham Station; this will be planted with Roses, so that, in whichever way visitors come to the grounds—rail or road—they will rush “in medias res” at once. The out-of-door propagation department will be screened off from the grounds by a Beech hedge, and behind it all the various mysterious doings and cunning experiments connected with grafting, budding, &c., will be carried on, thus providing against the dissight which this part of a nursery generally is. The houses are, of course, incomplete; but when the whole square is finished, it will form a most admirable and well-arranged series, if those completed may be taken as an index of the whole. The potting shed is placed between the show-houses and the propagation-pits, and contains the large boiler, by which, on the one-boiler system, the whole is heated, the doors of the houses on either side opening into the shed, and thus a pot of cuttings requiring to be potted off need never be exposed to the air, but is at once brought to the potting-bench and thence returned to the house again. In the same way, on a visitor purchasing a plant in the show-house, it has only to be put through the door and potted and packed up at once. The labour that this will save will be immense, while its advantage for the well-being of cuttings is obvious. Another house is built, as far as the roof is concerned, on Sir Joseph Paxton’s principle of ventilating by the open shutter the whole length of the roof; but to this, as Mr. Paul showed, there were objections when opened—if the wind is high it must keep *wabbling* to and fro, as it affords so much leverage to the wind. The glazing of this roof was peculiar, the bars being sunk instead of elevated, forming a groove into which the water ran, while, instead of putty, the large squares were screwed on, a band of india-rubber being placed under the head of the screw. Should this answer it has many advantages. There is a much greater likelihood of avoiding drip. Time and expense are saved in painting, as instead of having to paint the projecting sash-bar it only needs to run the paint brush down the groove. The objection is, that it has yet to be seen what effect frosty weather will have upon it. I should very much fear that the expansion and contraction of the glass would very soon cause it to crack at the screws; if this can be prevented at all the india-rubber band will do it, but this must remain until time “that proves all things” shall decide. Tiffany, used according to Mr. Standish’s suggestion, is largely employed. There was one long double pit, about 40 feet, built of turves and covered with it, and filled with a large number of Roses in pots, which only cost £10. It of course receives a good portion of the rain, about one-half of the fall, but, for hardy

things, this is not of so much consequence. Another larger and loftier house was built of the same material, and contained a fine collection of fruit trees in pots, vines, &c. I also noticed some handy little frames for propagating; they were about 2 feet 6 inches long by 2 feet wide, with one bar in the centre, and are easily lifted from place to place by a handle at each side; they cost about 3s. 6d. a piece, and are therefore much cheaper than handglasses and certainly more convenient. The same attention to details, which is manifest in the rest of the establishment, is also to be seen in the seed shop; this, as I have said, faces the street of Waltham Cross, with a fine frontage, and is both airy and light. There is a withdrawing room for ladies, a point often neglected in such cases, while, over the shop, are spacious and airy lofts for the purpose of stowing away seeds, into which branch of the nursery business Mr. Paul intends to enter. These, with the private offices, are all to be heated with gas stoves, which will give sufficient warmth and dryness to the atmosphere. There is ample space in the windows for the display of flowering plants and cut blooms, and no doubt the well-known skill and enterprise of the proprietor will be a guarantee that, in the summer months, they will be sufficiently gay.

It was my intention to have driven over to the old nursery grounds, and have had a run through them, but all the vehicles were engaged for a review of those sons of Mars, the volunteers; and as I dreaded the arrangements of the Eastern Counties railway, I was unable to remain longer. My object, however, had been principally obtained, and if I have been enabled to give the readers of the *Florist* anything like a correct idea of this establishment, I feel that I shall have done them a service, as they will acknowledge if, some fine day next summer, when the Roses are in full bloom, they take a run down there; and of this I can assure them, that if the proprietor be at home they will have the advantage of an intelligent and business-like guide. Being disappointed in this, we sat down and had a quiet chat over Roses, both new and old; and as I have prolonged this paper to my usual length, I must refer the readers of it to a separate article, where they will find the result of our combined observations, though I am afraid in this instance, I am but as the bellows blower to Handel; and in "An Hour with the Roses of 1859-60," they must recognise far more of Mr. Paul's experience than of mine own; this will, I know, enhance their value in the eyes of all sound judges.

Deal, Oct. 18.

D.

THE FRUIT CROPS OF 1860.

AFTER the extraordinary season we have had, a few remarks on our fruit crops may not be altogether inopportune, especially if I can show, as I will endeavour to do, that satisfactory results can be obtained, even in so very unfavourable a season as that now drawing to a close. I have several times before now, in the *Florist* and elsewhere, stated as my firm belief—founded on long practical experience—that good crops

of fruit can be annually obtained in the open air in Great Britain, when the necessary conditions to effect that object are observed. Every day's observation and experience tend more and more to satisfy me as to the soundness of this belief. I have also stated more than once that when there is a failing crop, the fault is in *general* to be attributed to bad management, and not (as too many are apt to believe) to spring frosts and our precarious seasons. I am, however, well aware of the evil effects of these latter. Nevertheless, with proper cultivation, I do believe it possible to get good crops.

Let us look at our orchards, and see how they are in general managed. The trees are often bought of some petty nurseryman or market gardener, one-half of them not true to name; they are planted with, we will suppose, care, and then staked and attended to for the first year. What attention do they get afterwards? In general little or none. Apple and Pear trees, if they are to become handsome and fruitful, require to be properly pruned, and the shoots to be trained and regulated for a few years. Do orchards in general have this attention bestowed on them? Not one in a hundred. Look into what orchard you may, you will find three times too much wood in the trees, and this crowded with spurs. What is the result of this neglect? Why, in favourable seasons these trees bear three times more fruit than they ought to do, and the consequence is the trees are so exhausted as to be unable to bear any the following season. It is bad policy in every respect to allow fruit trees to bear very heavy crops; for the fruit being small and of inferior quality, will only bring a small price, whereas, had two-thirds of it been removed when small, and only one-third allowed to come to maturity, the fruit would then be large, of superior quality, and would realise a good price. Besides, by only allowing a moderate crop to ripen, there is every probability of a crop each succeeding season.

Before taking a review of the crop of 1860, I would ask your readers to go back with me to the year 1857. The fruit crop of that year was the lightest and worst that had been known for some years; the fruit crop of 1858 was one of the finest and most abundant on record. There were no exceptions that season, all were alike good—bush fruit, wall fruit, and orchard fruit, were all equally plentiful. The summer of 1858 being hot and dry, was most favourable for the ripening of the fruit, also for the growth and maturation of the wood; notwithstanding this, the crop of 1859 was nearly, if not quite, as bad as that of 1857. Oh! but the spring frost did the mischief. Did it indeed. Were the trees, in the exhausted state in which they were after the heavy crop of 1858, in a condition to bear a good crop? Methinks not. The crop here was everything that could be desired; and this I attribute, and rightly, to the trees being properly pruned, the spurs well thinned, and the fruit well thinned.

One large Apple tree (a Cockpit, which is a good bearer) was allowed to carry all the fruit that had remained on, and the result this year is, there is no crop. Now, after this season's rest, I have not the slightest doubt that this tree will have an abundant crop in 1861, no matter what the weather may be in spring.

Owing to the failing crop of 1859 and the fine hot summer, the trees last spring were in a good state, and people looked hopefully forward for a good crop this year. We had an old-fashioned winter, sufficiently so, I should say, to satisfy any of those who think that our winters now-a-days are so much milder and more open than in former times. We had a very late spring, and the fruit trees were, in consequence, late in flowering. I do not ever remember to have seen a finer promise of an abundant fruit crop than there was the latter part of May; but the violent storm on the 28th of that month (May) wrought sad havoc among orchards. A temperature considerably below the average, and a deficiency of bright solar light, have had their effects on the fruit crop of 1860. Strawberries were about ten days later in ripening than in 1859, but notwithstanding the plants suffered in many places last winter, particularly British Queen, the crop of fruit was good; our own was never finer. Raspberries, Gooseberries, and Currants were about a fortnight later in ripening than in 1859; they were very plentiful and fine. Cherries were also plentiful. Apricots were a heavy crop, and nearly a month later in ripening than in 1859; our own were very fine. Figs, Peaches, and Nectarines were plentiful and good, and fully a month later than in 1859. Plums have been an extraordinary crop; the Victoria has been fine on standards, the Washington bears abundantly as a standard, but does not ripen well; the Jefferson has been fine on walls, but the Reine Claude de Bavay will hardly ripen with me this year on a south wall; all the hardier sorts of Plums have been most abundant. Pears and Apples have been heavy crops; in general they are smaller than usual; ours are nearly as good as usual. And here I would call attention to the very great difference in a season like the present between fruit from trees properly pruned, thinned, and cultivated, and fruit from trees unpruned, unthinned, and uncultivated; the latter is small, deformed, and pitted, whilst the former is clean, fine fruit, and nearly the average size. In every place that I have visited this season, where the management has been good, the crops have been abundant, and some very fine, notwithstanding the extraordinary season, but all have been late in ripening. That my own fruit was not bad will appear clear from the fact that at all the local shows which I attended I obtained prizes for it.

If, then, in a season so unfavourable as 1860, satisfactory fruit crops can be obtained in the open air with good cultivation, we need not trouble ourselves as to what kind of season that of 1861 or any succeeding season may be. We have only to plant such kinds as are suitable to each locality, to attend timely and regularly to the training of the shoots and the thinning of the wood and spurs, and never, under any pretence, allow any trees to carry too heavy crops; by these means and by constant watchfulness in keeping down insects, &c., we may reasonably expect average crops of good fruit even in unfavourable seasons.

Stourton, Yorkshire.

M. SAUL.

ORANGE MILDEW AND BLACK BLOTCH.

ROSE trees have, this year, been comparatively little affected with the former, but much affected with the latter; yet, where they have been seized by either, their blooming, if not their constitution, has been injured. I call the former "Orange Mildew," because I see in a book there is such a fungus. In the same work, "Black Blotch" is also spoken of as the effect of fungus; but I have my doubts on this point, as I have never been able with my microscope to detect the fungus, or anything relating to it.

The following is the account of two kinds of Orange Mildew, and the first also speaks of brown blotches:—

1. *Erineum griseum*, forming broad grey, orange, or brown blotches, which overrun the leaves of the Mountain Ash, the Sycamore, and other trees.

2. *Ecidium cancellatum*, which occasionally does much harm to Pear-trees in Hertfordshire. It appears first like bright yellow spots, and by degrees a liquid matter is exuded from them; at the same time small conical processes appear in clusters from the under side of the leaf; these processes enlarge, become fibrous, open at the sides by innumerable slits, and thence discharge their spores. This fungus often produces the most destructive consequences, appearing upon the leaves, stems, and fruits, generally destroying the tree. Another species, *Ecidium laceratum*, sometimes spreads over Hawthorn hedges, and the common orange red mildew of the Berbery is *Berberidis Ecidium*.

This is all that I can discover from books about orange mildew and leaf blotch, which I will now describe, as they have appeared here.

In my Rose leaves, this year, I have observed in the under part of the leaves this orange blotch, as if glued on, and hardly removable with the finger-nail. On the upper side of the leaf there is a little darkened spot, just opposite the conical bunch under the leaf. From this bunch the fungi break forth, and soon overspread the whole of the leaves on both sides, and by destroying the leaves must do much injury.

This is the same disease that, in previous communications, I have called "rust," from not knowing what to call it. I did not, this year, trouble myself to pull off the affected leaf; but another year, if spared, I shall do so. No matter, whether this is fungus or mycelium; whether it is *Erineum griseum*, *Ecidium cancellatum*, *laceratum*, or *Berberidis*, it shall be removed as soon as seen. I am determined to try weak solution of vitriol upon the leaves, both as a preventive and as a cure. This mildew is as destructive as white, and, as it quickly spreads, must be removed at once. It is like the white mildew in this respect, viz., it destroys or impairs delicate trees more easily than the robust. It is remarkable that deep-coloured Roses, as a class, are more delicate than those whose blooms are rose-coloured, and are more easily destroyed or impaired by mildews than others. This may be attributed to their constitutional weakness, for their colour is connected with a want of power to decompose carbonic acid gas, which is an indispensable—and the most indispensable—function in the vegetable kingdom. If

this be so, it is not improbable that tender light-coloured Roses suffer from too great a decomposition of the same.

Of dark-coloured autumnal Roses, *Triomphe de Paris*, *Patrizzi*, and *Marie Portemner* appear to be the hardiest, and also the healthiest. *Reveil*, though a hard opener, is still a very healthy dark Rose. So also is *G. Peabody*, which is now blooming beautifully from Briers budded this last June: but the very dark Roses are still, as a class, a tender race, which may be instanced by *Adelaide Bougere*, *Souvenir de l'Exposition*, *Victor Trouillard*, *M. Masson*. Probably, their debility may arise, as their colour does, from inability to decompose carbonic acid gas. No doubt, the parentage has something to do with it. One thing is certain, that some of the high-coloured Roses, which are difficult to grow or keep healthy on alien stocks, are hardy and healthy on their own roots—as, for instance, *Paul Joseph*, *Proserpine*, *General Jacqueminot*, *Géant des Batailles*.

With regard to *Black Blotch*, or stain on the leaves, there has been much of it here this year; but whether it arises from mildew, the puncture of insects, blight, or the disrapture of the leaf-vessels, which are the lungs of the plant, I cannot determine. The effect is, the leaves drop off and new ones are formed; but I have never noticed any permanent injury. If this malady is not to be attributed to any of the above causes, it may be attributed to the easterly wind absorbing more perspiration than the roots can supply; or, it may arise from want of free drainage, and high culture, causing surfeit.

In this paper, as in the last, I do not attempt to settle these difficulties. My object is to call attention to the injuries done to our favourite flower, and to elicit information from those who have paid more attention to such subjects than I confess I have hitherto done. "Prevention is better than cure," and, if we can discover how these miseries are generated, we shall be better able to prevent or cure them. I have not mentioned *Triomphe de l'Exposition* among the hardy and healthy dark Roses, because, on neither stock, has it, from the extreme wet rather than from disease, done well this summer, but it is still one of the best dark Roses ever yet introduced. We must make an apology for it, and say the winter, spring, summer, and autumn, have been abnormal.

Rushton, Oct. 2.

W. F. RADCLYFFE.

REVIEW.

The Fruit Manual, containing Descriptions and Synonymes of the new Fruits and Fruit-trees commonly met with in the Gardens and Orchards of Great Britain, with selected Lists of those most worthy
By ROBERT HOGG, LL.D., F.H.S., &c. Pp. 280. London, 1860.

THIS is the most useful little work which has yet appeared on the fruits of Great Britain. Dr. Hogg is well known to fruit-growers as the author of "British Pomology," as well as by an earlier work similar to the one now under review, published fifteen years ago; and to horticultu-

rists generally, as co-editor of the "Cottage Gardener," and author of the "Vegetable Kingdom and its Products." Dr. Hogg has also recently been appointed Secretary to the Fruit Committee of the Horticultural Society, having previously taken an active part in the management of the Pomological Society, of which he was Vice-President. With all the advantages which Dr. Hogg's antecedents have given him, added to an intimate acquaintance with continental pomology, it was reasonable enough to expect that the new edition of the "Fruit Manual" would be greatly in advance of all previous works on the same subject. Nor have we or the public been disappointed; for although, as it appears to us, there are some points in the nomenclature of fruits in his work still open to discussion, and a few more in their history to which we cannot subscribe; yet we must remember that British pomology, in many instances, is as yet in the transition state from a comparative chaos of confusion and error to a more perfect system of classification; and that even with all Dr. Hogg's qualifications for the task (and these we have much pleasure in admitting are of the highest order), it will take time and a long series of comparative and experimental trials to arrange, in a satisfactory manner, the nomenclature and synonymes of the entire series of fruits now grown in British gardens, with the numerous additions which, year after year, are being made to the list.

There can now be no doubt that the establishment of the British Pomological Society gave a great impetus to the history of fruits and fruit cultivation, the former of which, for years previous to its formation, had been standing still, merely through the want of a proper medium by which the interchange of facts and ideas connected with the subject could be registered and disseminated; and although that society did not fulfil all that was expected from it, yet it was undoubtedly the means of calling into existence the Fruit Committee of the Horticultural Society, which, founded on similar principles, and with similar objects in view, we hope is destined to place British pomology in a position commensurate with its utility and importance. We are sanguine enough to consider the formation of the Fruit Committee of the Horticultural Society as the most certain evidence of self-imposed progression in practical horticulture which ever emanated from that body. Originators of new fruits have now a tribunal composed of practical men, whose unbiassed verdict on the subjects submitted to their judgment either stamps their productions with a mark in proportion to their merit, or consigns them to oblivion; and whose business it is also to compare old varieties of fruit with each other—to ascertain and to record their correct nomenclature, and the synonymes under which they may be known in different localities. Other information of great importance to fruit-growers, relating to the climate and soil, favourable or otherwise for certain fruits, is also engaging the attention of the committee, as we gather from their published reports; and their labours may be usefully extended in this direction, as well as in the appointment of local secretaries and corresponding members in districts where but little is known of many varieties of fruit—Apples more particularly—beyond their own immediate locality, some of which are doubtless of consider-

able merit. We have embraced this opportunity of suggesting the above to the Secretary of the Fruit Committee on this occasion, as bearing upon the subject of our present review of a work devoted to fruits, and of which he is the author, and with these suggestions we must close our observations on pomology generally, and proceed to notice the "Manual" itself, which is an immense step in advance, both as regards its conciseness, classification, and correctness of nomenclature. As we intend taking each kind of fruit separately, from time to time, as we have the opportunity, we shall confine our remarks on this occasion to the list of Grapes alone, taking them as they are placed.

Barbarossa.—Under this head Prince Albert is given as a synonyme. Although there are several points of resemblance between these varieties, we are inclined to consider them distinct.

Black Tripoli (Welbeck).—We have grown this variety twenty years, and consider it as the old Frankenthal, as stated in the "Manual," but we also consider the Pope's Hamburgh and the Victoria as synonymes of the Black Hamburgh, and not of the Tripoli Hamburgh, which with us has a thicker skin, and is decidedly inferior in flavour to the genuine Hamburgh, though perhaps of stronger growth and finer general appearance. This, however, is not the Black Tripoli of Speechly, which was a very different Grape, with reddish brown oval berries, very late in ripening, and hanging on the Vine until it became a raisin. Thirty years ago, this variety was grown in Leicestershire and the Midland Counties as their latest Black Grape, and may perhaps be found there at the present time. Report used to say, that the Vine to which I allude was presented by Speechly himself, who then resided at King's Newton, near Melbourne, Derbyshire.

Cannon Hall Muscat.—We have always found this variety to set worse than the Muscat of Alexandria, instead of better, as stated. When well set and ripened it is the noblest looking white Grape extant; and as it ripens fully a fortnight before the Muscat, we have grown it extensively as a June Grape, but it is a very uncertain Grape to manage. *Charlesworth Tokay*.—There is really no difference whatever between this SAID variety and the Muscat of Alexandria, and the name should therefore stand as a synonyme of the Muscat.

Gromier du Cantal.—We are inclined to think there are two Grapes under this name, one with a lesser but more compact bunch than the other, and with paler but much larger berries.

Madeira Muscat with us proved a small-berried worthless variety.

Mill Hill Hamburgh is certainly distinct from the Dutch, but in our opinion inferior to the common Hamburgh in flavour. We find it does not bear spurring in well, and is most productive when fruited on long rods, a remark which also applies to the Barbarossa and Cannon Hall.

Royal Muscadine.—D'Arboyce is given as a synonyme. If we remember rightly, Speechly describes a Royal Muscadine or Chasselas D'Arboyce, a very different Grape from the White Muscadine, given also as a synonyme, the Vine being a strong grower, with leaves downy on the underside, and having very large loose bunches and round berries. We have lost this Grape ourselves, but we think it is in the neighbourhood; it was a very distinct kind.

Duc de Malakoff.—This variety sets better and is a finer Grape with us than the Sweetwater.

To show how liable the Vine, like many other kinds of fruit, is to sport, and produce what may be called sub-varieties, we have a Black Hamburgh which, three years back, produced, about half way up the house, a shoot with decidedly different foliage, the lobes being much sharper cut, and curled, with footstalks considerably thickened at their base and shorter than on the rest of the Vine—bearing, in fact, a close resemblance to the Champion Hamburgh. The following year, and ever since, this shoot has produced Grapes also very different from what are growing on the same rod below where the new growth commenced. The berries are much larger (twice the size), the bunches shoulderless, altogether resembling the Champion Hamburgh. We have not yet propagated this sport, thinking it would go back to the original form again; but as this is the third season of the change, and there appears every evidence, looking at the appearance of the wood, that the sport will continue permanent, we intend raising a few plants this next season from both portions of the Vine, by way of more completely testing the permanency of the alteration in character. May not the Champion Hamburgh and other sub-varieties of Grapes have originated in the same way? We must now postpone all further notices for the present; in the meantime we strongly advise every fruit grower to make Dr. Hogg's Fruit Manual his pocket companion at once.

LETTERS FROM THE CONTINENT.

FLORENCE.

“THERE are,” says an accomplished American, “but two styles of laying out gardens, or more properly, pleasure grounds—one English the other Italian.” Whatever changes have been introduced in other countries are but modifications of these two systems. The difference in them is the result mainly of differences of climate, and of consequent diversity of habits and tastes. The Englishman living in a climate of uniform coolness, is led to form habits of active exercise; and he delights to surround his dwelling-place with such adornments as his means will allow, so that his walks and rides may be as extensive as possible. His house becomes only a small part of the landscape, and he brings the greenness and wildness of nature as near as possible to his very door. He disposes of his trees and shrubs in such a way as to banish the idea of formality, and to create the impression that they have been sown by the hand of Nature herself. Living under a gray and overclouded sky, where lights and shadows rapidly alternate, and gleams of watery sunshine fall in broken fragments, he is obliged to forego the sudden contrasts of broad masses of light and shade, and to seek that general effect, the combination of many particulars, which requires a large space to be produced. The moisture of the English climate is also favourable to the growth of trees and shrubs, and is the immediate cause of that exquisite verdure which is the great charm of

English landscape. On the other hand the Italian, living in a hot climate, seeks to be led into the open air by insensible gradations and unobserved intervals. His garden is to a considerable extent an architectural creation. His terraces and balustrades form rooms in the open air, without walls or roof. The powerful sun which burns up his Grass creates a necessity for shade, and instead of distributing his trees in clumps over a lawn, he plants them in rectangular rows, so that by the meeting of their branches they may make a sun-proof canopy. As the light falls in monotonous sheets from a cloudless and dazzling sky, he contrives by salient projections, by walls, vases, balustrades, statues, and by thick-foliaged trees, like Pines and Cypresses, to produce strong shadows, and thus modify the general glare. For the same reason—the prevalence of heat and sunshine—fountains are added, if not to cool the air, to awaken dreams of coolness, and refresh the thoughts, if not the senses. We, English, have not dealt fairly with Italian landscape gardening, nor judged it with reference to ends proposed to be accomplished by it. Their “groves nodding at groves,” their paternal alleys, their formal walls of verdure, are not caricatures of nature, introduced from a perverse preference of what is quaint and fantastic, but simply such a direction and use of the energies of nature as shall produce certain results which are required by the climate, and which shall so blend with the features of the palace or villa as to produce an architectural whole. English summers are frequently like those of Italy—our winter, Siberian. Skilfully to combine the English and the Italian methods would realise what Addison, in the “Spectator,” so admirably advocates. He says—“I have often wondered that those who, like myself, love to live in gardens, have never thought of contriving a winter garden, which would consist of such trees only as never cast their leaves. We have often little snatches of sunshine and fair weather in the most uncomfortable parts of the year, and have frequently several days in November and January that are as agreeable as any in the finest months. At such times, therefore, I think there could not be a greater pleasure than to walk in such a winter garden. In the summer season the whole country blooms and is a kind of garden, for which reason we are not so sensible of those beauties that at this time may be everywhere met with; but when nature is in her desolation, and presents us with nothing but bleak and barren prospects, there is something unspeakably cheerful in a spot of ground which is covered with trees, that smile amidst all the rigours of winter, and gives us a view of the most gay season in the midst of that which is most dead and melancholy.”*

Since Addison wrote, in 1712, now nearly 150 years ago, so many new plants have been introduced from Japan and other countries, eligible for the formation of winter gardens, so many shrubs with brilliantly variegated leaves and bright berry bearing clusters, that effects might be produced that would gratify all beholders. Glass is now so cheap, and modes of economising fuel so well understood, that at but little cost a covered space for exotics might be realised by all who love

* “Spectator,” No. 477.

gardening. At Trentham, one of the princely residences of his Grace the Duke of Sutherland, we have seen the most successful winter garden in this country. The walks are so broad that a Bath wheel-chair can traverse them; the temperature is kept low and the ventilation perfect; it is, in fact, a mere shelter when out-door exercise would, for the delicate, be impossible. The supports of this choice construction at Trentham are covered with climbing plants, and pendant from the roof are many varieties of the Passionflower, some of which are always in blossom. Orange, Myrtle, Lemon, and other fragrant trees fill up the quadrangles, and flowers we call common in summer are provided by gathering late in the autumn such young plants as spring from self-sown seeds, and which if not removed to such a shelter, will surely die. To force plants for such a covered winter garden is not needful. The conservatory claims those more tender exotics. One-twentieth part of the cost of hothouses, and much less of labour, will secure the advantage of a congenial climate, space for exercise, and the refreshment of floral variety, to all who choose to have a pleasure-garden in a winter.

Writing from Florence, my truant thoughts have wandered to my own country, and my letter is so long that you will prefer postponing until next month what I have written on the Boboli garden.



Grafting is much practised in the orchards at Fesiole; the method in vogue is similar to that in use among the Egyptians more than two thousand years ago, as it appears from a scroll of papyrus which I saw in the library of the Vatican. In a book printed three hundred years since, the author, Sebastian Munster, gives an engraving shewing the process of engrafting, which exhibits a coarse cloth precisely like what I saw a Florentine gardener employ but yesterday. This covering of canvas prevents the loam, or whatever medium is employed, from

crumbling away—also, moisture is retained for encouraging the graft. In England—by trusting to a slender ligature, frequently a rotten one—the entire labour is lost. I will not trouble you with Sebastian Munster's reasoning on the subject or translate his methodical directions for ensuring fifteen sorts of fruit on one stem—the annexed tracing from the quaint woodcut renders all this tangible.

Before visiting the great galleries, in which are displayed the wonders of sculpture, painting and jewel-work, I was determined to become familiar with the outward features of this fair city, and the floral treasures so richly abounding in the vicinity. Daybreak saw me upon the hills gathering in the cornfields Tulips of pale golden yellow—not the tint of gold after it has been alloyed for coinage, but as I have seen the pure virgin metal in the mines of Mexico. Those Tulips are of most elegant chalice-like form, the petals pointed, fringed, and curved, droop on their wavy stems, and form in their outlines precisely the curves which Hogarth has engraved as the line of beauty. I have filled a large marble vase with those beautiful Tulips, and regret that I cannot make drawings from them.

Belloguardi is one of the most interesting localities, and commands one of the finest views of Florence, with the Apennines still covered with snow. The Val d'Arno is charming; there is a tranquillity in such scenes before the business of life commences that delights me; the trees seem to stand more proudly at the break of day, and flowers dew-impearled are more fresh and lovely than in the broad glare of day. Frequently I met with the Pimpernel (*Anagallis arvensis*), our shepherd's hour-glass or dial, and, as in England, trusted to its indications. The Italian peasants notice this natural barometer, and know it by the name of *Anagelao*, to make cheerful, or remove despondency; husbandmen are keen observers of those sensitive blossoms, which warn them more certainly than many other weather tokens.

To enumerate and describe all the wild flowers of this fascinating district would require volumes; sixty-four distinct specimens we gathered during one morning's ramble.

On the hill of Belloguardi stands Galileo's Observatory, called the Torre del Gallo, a tower of ancient date adapted by the philosopher to his purpose. At a short distance from the observatory is the Villa del Gioello, the residence of the astronomer, and where he is said to have entertained Milton, when the poet was on his travels. Here Galileo dwelt in banishment till he died. Many of those descriptions of scenery to be found in the writings of Milton are traceable to his sojourn in Italy; the gardens of Villa Gioello may have suggested the passage—the Indian—

“That tends his pasturing herds
At loopholes cut through thickest shade.”

In the neighbourhood of Belloguardi there is a large irregular pile, which, from small beginnings, became an important villa. The choice situation induced some Cardinal to add a banqueting-room to the mansion, and there he entertained much company, and frequently the Pope. The Cardinal's niece was a worshipper of flowers, and her garden was cele-

brated for Anemones, which are said to have been so named from an old opinion that they never blossom except when the wind blew; in fact, they do flower in the blustering seasons, and love to grow in exposed and elevated situations. No cultivated specimens equal the Anemones which grow at Belloguardi; the flowers are larger, the colours richer, the white more pure, and the abundance more profuse than can be obtained in our gardens. One dark ruby-tinted Anemone, with stripes of clear white, and a margin also of perfect white, is called the Cardinal's Niece; this was her favourite flower. The name of this lady is forgotten; the villa is now inhabited by labouring people; the banqueting-hall is used as a lumber-room; swallows build their nests in the gilded cornice, and the painted ceiling is partly veiled by spiders' webs; the balustrades are broken, the statues prostrate, the fountains cease to play, and all is desolation; still the favourite flower is cherished.

Sir B. Burke, in his second series of "The Vicissitudes of Families," in endeavouring to obtain the historical particulars of a once powerful family in Derbyshire, says—"The pedigree research caused me to pay a visit to the village. I sought for the ancient hall. Not a stone remained to tell where it stood! I entered the church—not a single record of a Finnerne was there! I accosted a villager, hoping to glean some stray traditions of the Findernes. 'Findernes,' said he; 'we have no Findernes here, but we have something belonging to them, we have Findernes flowers.' 'Show me them,' I replied, and the old man led me to a field which still retained faint traces of terraces and foundations. 'There,' said he, pointing to a bank of 'garden flowers grown wild'—'There are the Findernes flowers, brought by Sir Geoffrey from the Holy Land, and do what we will they will never die.' Poetry mingles more with our daily life than we are apt to acknowledge; and even to an antiquary like myself, the old man's prose and the subject of it were the very essence of poetry. For more than three hundred years the Findernes had been extinct, the mansion they had dwelt in had crumbled to dust, the brass and marble intended to perpetuate their name had passed away, and the little tiny flower had for ages preserved the name and a memory which the elaborate works of man's hands had failed to rescue from oblivion. The moral of the incident is as beautiful as the poetry. We often talk of 'language of flowers,' but of the eloquence of flowers we never had such a striking example as that presented in these flowers of Finnerne—

"Time—Time—his withering hand hath laid
On battlement and tower,
And where rich banners were displayed,
Now only waves a flower."

C. E.

THE ROYAL GARDENS, KEW.

THE Royal Gardens, like a great number of private ones, have been much shorn of their splendour this season, owing to the unfavourable summer and autumn. The flower beds, therefore, on the occasion of our visit, presented a patchy appearance, some plants having far exceeded the bounds of propriety marked out for them, and had encroached largely on their neighbours, who, on the contrary, had not filled their allotted space. This was very observable with edgings of *Perilla*, variegated Mint, and *Nasturtium*; indeed, so far as the former plant is concerned, the grounds are much overdone with it, and the beds had a look as if they had been put in half mourning in consequence. I name this to show how easy it is to overdo a thing, when a popular plant turns up. The *Perilla* is a most useful plant when properly placed as an edging to divide variegated-leaved plants or white flowers, but to plant it indiscriminately as an edging to every kind of bedding plant (this was not done at Kew), as we have seen it this season, or even in beds by itself, is a misapplication of an otherwise useful plant. There were some gay beds of *Verbenas* parallel with the long walk, Lord Raglan appearing in the best condition, and was very effectively edged with *Cerastium*. We noticed also good beds of Purple King *Verbena* edged with *Alma Geranium*, *Calceolaria amplexicaulis* edged with *Heliotrope*, *Dahlia* beds having a deep scarlet for the centre row, next a good yellow rather dwarfed, and edged with purple *Zelinda*; these beds were very well filled and showy. We noticed also good arrangements of Tom Thumb *Nasturtium* (a very useful thing), and variegated Mint. The fountain in the lake fronting the Palm-house, although scarcely imposing enough for the situation, would look much better if it had an architectural base to rise from, than the small patch of rockwork, dotted with Ferns, from which it now rises. As water jets and fountains are entirely artificial creations, they should never be disguised so as to appear as natural objects, and require therefore artificial accompaniments to carry out the object. Such may consist only of a simple stone base or plinth for jets and plain basin or tazza for fountains; but whatever the material or shape may be, it should form an architectural accompaniment.

The plants in the Palm-house have made great progress and are in vigorous health, and in every respect worthy of their royal residence. The grounds and arboretum were also in excellent keeping; the latter will form an important feature in a few years, as the trees get up in size. The foundation of the new Winter Garden is being proceeded with. This, as many of your readers will know, is intended to contain the vast collection of half-hardy and greenhouse plants which have been collecting ever since the time of Sir Joseph Banks and the late Dr. Robert Brown. Formerly they were chiefly Australasian and Cape species, but more recent additions to this class of plants from other temperate regions have been made to an extent which demanded either a large additional building to contain them, or their destruction was inevitable. Very many of the plants now huddled together in the old greenhouse are unique and invaluable as a national collection, and

Parliament acted wisely in responding to Sir W. Hooker's earnest solicitation for a suitable building, by voting the sums necessary to erect what is to be the winter garden, and which, when complete, will be a most magnificent structure. It is being erected to the right of the green avenue, looking from the Palm house towards the Pagoda.

The ornamental water which is being formed near the Thames is yet unfinished, and we were surprised to hear that when full the water will be 4 or 5 feet below the level of the surrounding ground. As we presume it will have to be filled from the Thames, the water cannot perhaps be got to rise higher, but then it would have been better to have lowered the ground adjoining to nearly the level of the water; at least such is my idea on the subject.

G. F.

VARIEGATED FERNS.

FOR several years past there has been an ever increasing love for Ferns and for beautifully-coloured leaved plants in the horticultural world, and it would seem that the same rule obtains in this, as in the commercial world, namely, that the supply corresponds with the demand. Until the last three years few among us would have expected to have seen variegated Ferns; it is, perhaps, the last family of plants in which we should have anticipated it, and yet we have now three very distinct species most beautifully coloured, and there are vague and mysterious whisperings floating about hinting that these will not be all in a few years time. The first variegated Fern which appeared in the field was Mr. Veitch's *Pteris argyræa*; the still more brilliantly-coloured *Pteris tricolor* came the following spring from the celebrated garden of M. Linden of Brussels; and then the third species, *Pteris cretica albo-lineata*, was introduced to the Royal Botanic Garden, Kew, from the mountains of Java. Mr. Stansfield, the well-known Fern nurseryman of Todmorden, informed us a short time since that, while making a botanical excursion with his friend, Mr. Eastwood, the latter had discovered a patch of the common Brake so beautifully and distinctly variegated that it had the appearance of being sprinkled with snow. It is very extraordinary that all the variegated Ferns yet discovered belong to the same genus, *Pteris*, and that the variegation is no mere accidental marking (as sometimes occurs in *Asplenium adiantum nigrum*) is proved by the gratifying fact that the plants all come perfectly true from spores. So far as our experience goes, not one of these variegated Ferns has, in a single instance, gone back to the green state which we must theoretically consider their original condition.

Pteris argyræa is, no doubt, a variegated variety of *Pt. quadriaurita*; its fronds attain a height of five feet (inclusive of the stipes), which causes it to have an imposing appearance entirely distinct from the other two species; it is a native of central India. The fronds are, when full grown, about two-and-a-half feet long, pinnate with the pinnae deeply pinnatifid; the two basal pinnae produce two or four branches from the lower side—these are pinnatifid like the pinnae; the second

pair of pinnae have generally small branches of the lower side in the same way; a broad silver stripe is well defined down the centre of each division of the frond—the form of the frond is altogether very elegant. This species grows quickly and succeeds well in the usual Fern soil, viz., turfy peat and a little loam and leaf-mould, mixed with plenty of good sharp sand. This Fern and *Pt. tricolor* both require stove temperature, but probably *Pt. cretica albo-lineata* will succeed quite as well in a cool greenhouse after the young plants are established as in a stove; but no Ferns, not even our hardy ones, object to heat while in a young state.

Pteris tricolor appears to be a variety of *Pt. aspericaulis*, the form of the frond and the general habit of the plant corresponding exactly with that species. There is a well-marked silvery stripe down the centre of all the pinnae and the secondary divisions of the lower pair, while the stipes and principal veins are bright crimson. The young fronds are most brilliantly coloured; the parts which, in the adult frond, become green are of a bright crimson, while the stripe which afterwards becomes silvery is a pale delicate pink. A well-grown specimen of this plant is one of the most beautiful objects it is possible to conceive. *Pt. aspericaulis* is not one of the easiest Ferns to cultivate, and *Pt. tricolor* seems to have inherited part of its constitution. It, however, grows well in a close warm house, partially shaded by other plants; it should be carefully guarded from draughts of cold or dry air, which cause the fronds to turn brown at the edges; and it should never be syringed, particularly through the winter. It was discovered in Malacca.

Pteris cretica albo-lineata is much more hardy and grows very freely under ordinary treatment. The fronds are about a foot long and the stipes 8 or 10 inches; they are pinnate, with linear lanceolate pinnae; the lower pair of pinnae are bipartite, or divided into two; the grey or silvery stripe occupies about half the width of each pinna. The sterile fronds are broader than the fertile and serrated with small sharp teeth; the fertile fronds are more upright in habit and rather longer than the others. The habit of the plant is very graceful, and it makes a small-growing neat specimen.

DELTA.

AN HOUR WITH THE ROSES OF 1859-60.

THE difficulty of judging the merits of new Roses I have more than once adverted to, and therefore I do not suppose that either Mr. Paul or myself would consider the judgment passed on the following Roses as permanent; another season will probably modify this, and consign to oblivion many of them; on the other hand, it is to be borne in mind that this season has been an exceptional one, for while on light grounds, such as do not in general suit the Rose, they have been very good, on the usual Rose grounds, they have not come up to the mark. As I have already noticed some of the new ones in the September number of the *Florist*, I shall therefore omit them.

HYBRID PERPETUALS.

ADMIRAL NELSON, a crimson rose, well defined outline, brilliant in colour ; and a fine flower.

BELLE DE BOURG LA REINE, rose satinée; the peculiar satin-like tinge of the Provence Rose, very good in shape, something like Madame Place.

Bourg La Reine is the name of the quarter in Paris where Vilmorin resides.

CELINE TOUVAIS, glossy rose, shape good.

COQUETTE DE LYON, dark rose, shaded ; small, but said to be pretty.

DUCHESSE DE MAGENTA, a very beautiful rose, but the habit delicate.

GLOIRE DE SANTHENAY, dark crimson, large, and very attractive.

L'ELEGANTE, the buds of this Rose are very beautiful, and it is said by some to be first-rate.

LEONIE MOISE, purplish crimson, shot ; very good.

LOUIS GUILINO, red shaded, somewhat like a shot silk ; distinct.

LOUIS XIV., fine dark purplish crimson flower, and very rich.

MADAME BOLL, a very superior flower, partaking a good deal of the Damask Perpetual character, the centre being filled up with small petals, very fragrant ; A 1.

MADAME EUGENE VERDIER, deep pink coloured flower, finely shaped ; a cupped rose.

MADAME PAULINE VILLOT, crimson purple, a good free blooming Rose.

MADemoiselle BONNAIRE, white, large, and beautifully shaped ; very attractive.

SENATEUR VAISSE, bright red, a very double rose.

SOUVENIR DE MONTCEAU, scarlet crimson, shaded ; a magnificent coloured Rose ; A 1.

TRIOMPHE DE LYON, dark crimson, shaded ; said to be a seedling of Prince Leon, and worthy of its sire ; A 1.

VAINQUEUR DE SOLFERINO, dark red, said to be an excellent autumn Rose.

BOURBONS.

BARON GONELLA, a very distinct large full rose.

GEORGE PEABODY, a very good Rose raised by brother Jonathan, and named after the great millionaire ; large and full.

GOURDAULT, dark purple, a very showy Rose.

VICTOR EMMANUEL, purplish maroon, a good double and distinct Rose.

NOISETTE.

AMERICA, a large flower of American origin, said to be something in the way of Souvenir de la Malmaison ; if so, and a good grower, it will be an acquisition.

TEA.

DUC DE MAGENTA, salmon ; a large, full, and very good Rose.

MADAME BLACHET, a varying coloured Rose, but large and good.

In addition to these, Madame Falcot, Homer, Madame Damazin, Madame Halphin, Madame William, President, Souvenir d'Elise Vardon, are valuable acquisitions to this beautiful class of Roses. And here let me say a word in answer to our correspondent, "G. F.," who imagines me, with bloodhound sagacity, hunting through the lists of horticulturists for his name, that I might have the pleasure of putting him in the pillory for writing against standard Roses. What if I agree with a great deal that he has said ? I did at first think him too sweeping, but when he comes to the end, like a lady's letter, the last

part is the best; and I candidly say that I would not care to have a standard higher than $2\frac{1}{2}$ or 3 feet, but at that height I think a Rose looks its best, it comes just under the eye, and if the plant be well grown it is never unsightly. So do not let us discard them altogether, and now that the *Gladiolus* is coming into fashion, it will do famously to plant in front of them.

Deal, Oct. 20.

D.

THE SIX OF SPADES.

CHAPTER IX. (continued.)

THE PRESIDENT'S LECTURE.

NEXT in favour to the *Provence* and the *Moss*, the sweet little "Fairy" Rose (*Rosa Lawrenceana*) gladdened my childhood with its tiny loveliness; and I can see our wax-doll, through the powerful telescope of memory, asleep in her miniature crib, with those wee flowerets on her coverlet and pillow. For she was a Royal Princess, you must know, of amazing beauty and of boundless wealth, and rested always on a bed of Roses, until she died one day a melancholy death, slowly roasted before the nursery fire by our brother Fred, to spite us. Very pretty are these Pomponé Roses, and as at the great poultry shows there are special classes for the pert, charming, and consequential family of Bantams, so should I like to see at *our* exhibitions, a Lilliputian box of these mignons, decreasing in circumference from *Ernestine de Barente* to the *Banksia*.

And the *York and Lancaster*, flaunting in its colours, but flimsy in its substance, like some other gaudy 'swells!' It was a delight, I remember, to arrange its petals, few as beautiful, upon a bit of newspaper, and placing over them some broken glass (once in a desperate dearth of crystal, I attacked an attic window with my batildore, and never since, I give you my honour, do I seem to have done anything half so daring)—to call this consummation a "flower show." I thought of these Rose leaves and of this broken pane, when it was my privilege to superintend the third National Rose Show in the Crystal Palace; and I murmured to myself very thankfully, very happily, and, I am afraid, very proudly, "The child is father to the man." Poor old *York and Lancaster*, it has succumbed to *New Village Maids* and *Œillets Parfaits*, and to *Perles des Panachees* and *Tricolors* of all denominations, and nothing remains to remind us of it now but the Lancashire and Yorkshire Railway.

I can but recall, in addition to the varieties I have mentioned, a white Rose, whose name I never knew, but which bloomed in beautiful abundance, and much resembled *Princesse de Lamballe*; the Sweetbriar, whose fragrance we were wont to express, with some precocious insight into the perfumery business, by crushing its leaves with our small fingers; and the Old Monthly, which looked in at our schoolroom window, and tapped thereon with its buds at times, as though inviting us, like the lover of "Maud," to come into the garden, and be glad.

How we used to envy those happy flowers, rejoicing in the sunlight, dancing in the summer breeze, unconscious of pothooks and hangers, emancipated from the thralldom of high-backed chairs, perfectly indifferent as to the orthography of the word *cat*, and not caring one dewdrop when who was king of where, or which was capital of what. The bees and the butterflies, when they came to call upon the Rose, used to laugh, I am confident, at our bare little legs, dangling from the uncomfortable sedilia, just now alluded to; the saucy sparrows twittered at our state; and the blackbirds, eyeing us from a contiguous Laurel, whistled comic songs at our expense.

They are gone, the Roses of my childhood, deposed by fairer flowers. Where those six held dominion absolute, six hundred distinct varieties have unveiled their beauty to the summer moons. They are gone from our gaze, but from our loving memory they shall never fade. I have a group of them, exquisitely painted by the skilled touch of a vanished hand, in a dear old family scrap-book, which I would not give for anything in the Bodleian Library; and I oft turn to them with a tender sorrow, a grief which is almost gladness, having a hope as pure and beautiful as they.

CHAPTER X.

And now* must I confess, with a blush upon my cheek as deeply crimson as *Senateur Vaisse*, just described in Mr. Cranston's catalogue as "intensely glowing scarlet, much more brilliant than *General Jacqueminot*," that for some fifteen years of my existence I walked "this goodly frame, the earth," with about as lively an appreciation of the beauties of a garden as may be supposed to be experienced by a collared eel. Abruptly and completely, like a coquette deserting a baronet for a peer, I transferred my affections from Flora to Pomona, and became miserably oblivious of all flowers pleasant to the eye, in my absorbing greediness of all fruits, which I, erroneously, supposed to be good for food.

Now I have not, my dear Brother Spades, I assure you, one unkindly thought against Apples; I have not a detrimental remark to make against Gooseberries, however green. Childhood, I know, will distend its little self, boyhood will fill its large pockets, and youth must have its fling at the Pear-tree, whatever age may preach. For myself, so far from sermonising, I thoroughly admire that magnificent digestion, which is no longer mine; I fondly desiderate that glorious palate, for which no *Magnum Bonum* was too unripe; and I mournfully envy those noble grinders, which were not afraid to grapple even with the Peach's iron stone.

But while I speak approvingly of this early fondness for fruit, and say of it, as Sam Weller said of kissing the pretty housemaid, that "it's Natur, ain't it?" I see no reason why a fondness of flowers should not be developed contemporaneously, or why in childhood and boyhood, and in many cases throughout manhood too, the sense of sight and of smell

* This part of my autobiography has been told before, in an article entitled *Rhapsodies about Roses*, which appeared in the "Gardeners' Chronicle," in the year 1852.

should minister only, so far as gardening is concerned, to the gratification of our tongues and throats, and cease to co-operate with the heart and brain. Why should not that love of the beautiful, which is innate in every exile from Erin, be encouraged by our pastors and masters, with as much care and attention as the Greek Grammar? Why should not our schools—and there are many, thank heaven, in which refinement of taste is no longer divided, and where it is no longer considered effeminate to avow an admiration of the works of God—why should not these schools have their garden as well as their playground; and why should not those who will hereafter have gardens of their own be instructed in that happiest and most useful of all sciences, horticulture? What arts could be better worth learning than those of making our homes beautiful, of providing ourselves with a never-failing source of innocent gratification, and of supplying to those around us the continual refreshment of delicious fruits, with a healthful abundance of those vegetables, which are adjuncts, as excellent as they are economical, to every man's daily food.

From these complaints you will infer, my friends, that I had small encouragement in my earlier years to foster my first love of flowers, and that I received no instruction whatever in the gentle craft of the spade. Once or twice during my schoolhood the old light emitted a feeble ray, and I was so far illumined on a special occasion as to lay out nine-pence on a Fuchsia. It was received, I recollect, on its arrival from the nursery, with a great profession of regard and admiration from several of the bigger boys, and they proceeded at once to demonstrate their affection by administering a variety of liquid manures, such as blacking, sour beer, and mustard, which they assured me, on the authorities of gardeners at home, who had made the Fuchsia their special study, would cause an immediate and gigantic growth. But when they proceeded, "according" (so they said) "to the invariable practice at Kew Gardens, and to principles laid down by Dr. Lindley," to distribute a fireshovel of hot cinders around my poor little plant, credulity gave place to bitter tears; and though I had the subsequent satisfaction of definitely discomfiting in five rounds a young gentleman, who thought to improve the occasion by addressing me as a "sniffing softy," I took heart no more during my scholastic term, to exhibit single specimens in pots.

In the groves of Academus (to use that beautiful diction, which is a trifle more appropriate to the groves of Blarney) there prevailed, floriculturally speaking, as remarkable a dearth and dreariness. Beneath the trees of those renowned plantations, which dip their metaphorical branches in the limpid waters of Isis and of Cam, we grew nothing but Scarlet Runners (undergraduates in hunting costume, swiftly darting from quadrangle and cloister to avoid collegiate and proctorial authorities); a few Stocks (the freshmen wore them, when there was not the same connection as now between a buckle and civilization); and a large assortment of Bachelors' Buttons (straps being the fashion in those days, and wrist-studs unrevealed).

We attended, it is true, with a prompt punctuality the Flower-Shows in 'Worcester' Gardens, and no one could gaze more earnestly than we

did upon those very delicate Roses and Tulips, which require the protection of a bonnet. We came away, moreover, with quite a longing for Heartsease, and were ourselves most perfect examples of Sensitive Plants and of Love-lies-bleeding. But all this in figure, and that figure a cypher. We never looked at the flowers, nor thought of them; and when I was asked by a friend at Chiswick whether I had seen that lovely Polly-anthus, I urged him, to his grand amusement, to point out at once the beauteous Mary, and, if possible, to introduce me. I never met him afterwards, but he had something facetious, as he supposed, to say in reference to my mistake. "Should I like to know the lovely *Hannah-Gallis*, the celebrated *Miss-Embryanthemum*, the two great heiresses Miss *Mary-Gold* and Miss *Annie-Money*? Had I seen anything latterly of *John-Quil*, *Bill-Bergia*, or *Stephen-Otis*, &c., &c., &c.?"

And so, sans ears, sans eyes, sans nose, I wandered, flowerless, through a flowery world. Some, perhaps, may tell me that it was better so; that boyhood should find its recreations in active games, and youth in the sports of the field; and that floriculture is incompatible with that hardy physical training, which hereafter is to make the man. But I designate this doctrine humbug. Why should a boy be less brave or strong, if taught to appreciate the beautiful things about his daily path; or why should youth ride more timidly to hounds, because it had a flower in its coat? There is a time for all things. A time to tend some graceful plant, as well as to kick a foot-ball; a time to store the heart with gentle attachments and refined tastes, as well as to run and row; a time to develop the intellectual as well as the physical powers.

At length, to revert to my own history, a brighter morn dawned upon my darkness. A single star, twinkling in the firmament, first told the advent of a jocund day; and that star, my friends, was—A ROSE!

S. R. H.

TURNER'S "FAVOURITE" CUCUMBER.

I SEE, by last month's *Florist*, that the Horticultural Society denies the originality of "Favourite." For more than forty years Cucumber culture has been my hobby, and, like all enthusiasts, I have tried every new introduction, in the hope of improving on my former collection. My application to Mr. Turner for the best he possessed was responded to by a packet of "Favourite," which I found to be such a combination of excellences, that I now grow no other. It recommends itself by high flavour, great produce, rapid growth, and universally perfect shape. I have now a cutting, still bearing, which produced its first fruit in February, and has yielded abundantly throughout the season.

When a gardener secures such a Cucumber as this, he troubles not himself with its origin or parentage—whether it sprang from Manchester or Slough is of no moment. If his profession be his delight, he will endeavour to preserve its purity by making it exclusive in his forcing-ground when the seed season comes round.

"Good seed of "Favourite" was scarce at Slough last spring, and that our obliging friend may be able to warrant a few packets to his immediate friends for next year's growth, I devoted a dung frame to the especial purpose of growing some true and unmixed. Early in July two cuttings were ridged out, from which I have just cut three fruit whose united lengths made 89 inches. The quantity of seed obtained is but small, but its quality is first-rate. There will be sufficient, however, to distribute among many of the best growers around London, whose opinions I shall be much pleased to possess, through Mr. Turner, next autumn.

K.

ROSE MILDEW.

THIS malady has much prevailed here this year, and very early in the year. I am therefore induced to call attention to the subject, more with the hope of eliciting from others what it is, how it comes, and how it may be prevented or cured, than of succeeding in settling these points. We are better judges of effects than of causes, and often mistake the one for the other, or attribute known effects to wrong causation. It is very probable that I am about to commit this error: it will, however, do no harm to ventilate the subject, even if I should elicit correction and information from more learned natural philosophers. I shall not attempt, with more than a glance, to enter upon Fungi generally, but shall chiefly confine my observations to Rose mildew.

Mildew I believe to be a parasitical fungus, affecting objects both living and dead, favourable to its propagation, from within or from without. The former may be called internal, attacking the plants inwardly, and only becoming perceptible, when, having been taken up from the roots into the circulation, it bursts through the surface of the plant for the purpose of development and dissemination of its sporules. Such is the fungus of Wheat smut, which proceeds from diseased seed; and which, having entered from the roots into the circulation, finally finds development in the ear, and thence sheds its spores and affects its neighbours. This is one form of internal fungus. There are many others of the same internal kind, that attack leaves, Celery, Pear, and Apple trees. Of this internal kind of mildew I do not now propose to speak at length, as I apprehend that Rose mildew is chiefly, though perhaps not solely, an external fungus, establishing itself on the surface of the leaves, without having proceeded through the circulation. That it might also proceed externally I can easily imagine, as in the case of Wheat smut: and if it does so proceed, I may say in passing, that solution of blue vitriol in water, which is a sure cure for smutty Wheat seed, might be found a good wash to put the roots of Rose-trees into previous to planting, with a view of destroying sporules: and even if this fungus does not proceed through the circulation, but from without, the same lotion which is destructive of the fungus of Wheat smut, might be found useful to stop the progress of external mildew, if outwardly applied to the leaves when affected. Of course, it would not be advisable to apply it too strong, or the remedy may prove worse than

the disease. Believing that fungi of divers kinds exist in the air, and wait for settlement and adaptation of weather and plants for establishment and growth, and believing that Rose mildew is an external fungus, I will, on this supposition (for I am not sure), turn from internal to external fungi. Such are the mildews that affect Onions, Peas, Cabbages, the leaves and stems of Roses, and also living and dead vegetables, or woody substances. For instance, cut a Lemon in two, and, in moist weather suitable to fungus, in less than forty-eight hours a rooted and growing fungus will be established from *without*; for I cannot think that it is mere putrefaction, or disease produced through the circulation. Again, throw stable manure into a heap, and let it lie, and in due time fungi will pitch upon it, take root, and come up in the form of Toadstools. I believe that the case is the same with the fungus of mildew on Roses. The spores or sporules pitch upon the leaves and adhere to the stickiest, and when the weather is suitable (Mushroom weather), they root into the tender skins of the youngest leaves, and feed upon the parenchyma, and stop the respiration of the plant, and destroy the leaves, which are the lungs of the plant. Rose mildew, if viewed through a powerful lens, will be seen to be monilious, or, to speak plain, jointed like a necklace; and I suppose that it is the same form of fungus as that which is called *Acrosporium monilioides*. I have, however, viewed some leaves of Boule de Nanteuil, the only Rose-tree that now has mildew, and my microscope represented the mildew as an infinite number of Mushrooms, surrounded by their spores. Till this "*external*" theory is controverted; or, till I have been enabled by more powerful glasses—for which I have sent to London—to detect my fallacy, I shall believe it to be true. In the meantime, I hope that no false delicacy will deter any one more versed in natural philosophy than I am from correcting any erroneous statements that I may have fallen into. I, for one, shall be truly glad to be corrected, if in error, and to be advised.

Turning from theory to undoubted facts, I will observe that some Rose trees are more easily and sorely affected with this fungus than others, taking more or less injury according to the earliness or lateness of the season of its attack. Among summer Roses, Ohl and Madeline are most liable to it. Among autumnals the Géant (taken the 8th of May) and its race generally are very liable to it. This summer, however, mildew has attacked all kinds of Roses, save those on their own roots. Manetti Roses, from their extreme succulence, are most favourable to its development; yet the following Manetti Rose trees, viz., Acidalie, Mont Carmel, and Duchess of Norfolk have escaped altogether. While the General Jacqueminot on alien stocks have been much affected, a fine tree of it, on its own roots, on the same bed with afflicted ones, has retained the cleanest, most vigorous, and dense green foliage. Of Roses on alien stocks, the lawn hole ones were the least affected, and the river side ones, where growth is quicker, were the most affected. Even summer Roses, which usually are freest from leaf blights, have been much and generally affected. I suppose that the development of the fungus, which adheres to all sticky leaves alike, depends upon the power of the spores to penetrate and root into the

epidermis. The leaves of Mont Carmel, Acidalie, and Duchess of Norfolk are of thick and close substance; and hence, I suppose, that the fungus cannot so easily establish its roots. I have never in any year discovered mildew on the leaves of Solfaterre, whose first bloom this year was 1570 Roses. Probably the reason may be, that it puts forth its leaves very early, which become indurated on the outer skin, before weather sets in, favourable to the development of fungoid diseases. I have suffered much this year, in both my Rose gardens, after the first most glorious bloom; but I hope that a sufficiency of new wood may have been formed and matured (!) for another year, before the malady affects the trees. I did not dress the plants generally, but I tried the following expedient with most glorious Eugene Appert (two on Manetti stocks). I plucked off the mildewed tops and leaves, and washed the plants with water and sprinkled them with sulphur: since which they have bloomed beautifully and showed no further signs of the fungus.

In conclusion, I cannot but think that, after twelve month's rain and varied blights, now to be followed with an early winter, a great many plants, on either stock, must die. The established Roses on their own roots, Teas and others, certainly, at present, for healthy appearance, stand out in proud pre-eminence.

With regard to the development of the various blights or the blight of mildew, I have no doubt that the higher you manure the more you will suffer, especially from fungoid diseases; but, at the same time, greater will be your Rose results, which will, on the whole, compensate you for the disaster of diseases favoured thereby.

Aphides, I rejoice to say, have done but little mischief; and, if we have suffered from fungus, let us adore the wise Creator for their establishment, for the taking up of fecal gases, and of thus helping to purify our world. Without the absorbing fungi to how many malarious diseases might the inhabitants of our land be subjected to? The works of God are truly manifold, and though we cannot always trace him, yet, in wisdom, has he made them all.

Rushton, Sept. 29.

W. F. RADCLYFFE.

SPRING FLOWERS.

SOME years ago, when living near London, in a large establishment, it was part of my duty to cut and pack a basket of hardy flowers, which were sent to the London house every week-day morning, the stipulation being that all were to be cut from the open air, as her ladyship would accept no forced or greenhouse flowers for her own boudoir. This task put me on my mettle, for I found it no easy matter to keep up the supply six days per week, the early part of the season commencing from the middle of February. During the long vacation following my first season, which took place from the end of July, I set to work, and propagated every spring flower I could lay my hands upon, and the second season found me much better prepared to comply with my

instructions, and enabled me also to arrange and fill a separate garden exclusively with flowers commencing to bloom in February, and affording a succession up to July, mostly herbaceous in character, but including spring bulbs and small flowering shrubs, to the great delight of the noble lady, whose pleasure it was to patronize only such flowers as could brave the open air of our climate. Why don't you take up this question, and help your readers to a list of such things as would make a garden gay from the earliest spring to midsummer? So wrote a correspondent to us some time back, and on our asking him to favour us with an article on the subject, he has kindly forwarded us the following:—

A garden of spring flowering plants should be exclusively devoted to them, and therefore it should be arranged in some sheltered part of the grounds, at no great distance from the house, to be easy of access during the early months of the year. A warm corner well protected by evergreens, and open to the south, would be the most favourable situation. It has lately become the fashion to fill up the parterres with plants which bloom in the spring and remove them early in May before replanting the beds with greenhouse plants. This may answer with a few plants, more especially bulbs, but the majority of spring flowers do not thrive when removed often, and to see them in perfection should be left, some kinds for several years, others for a less period, agreeably with their habits. I propose, then, to have them arranged in beds and borders, which should remain undisturbed after the plants have bloomed, except so far as weeding, dividing the roots, and dressing the beds with fresh compost is concerned. Some of the plants should be provided with peat soil, others with sandy loam, which is best suited to the bulbous rooted section, while for the greater part good garden earth is all that is required. If a garden is expressly appropriated to this class, it would be additionally interesting to have beds and patches of early flowering shrubs which do not grow too large, interspersed with the perennial plants and bulbs, the flowers of which would form a pleasing addition to the garden, and their presence would help to produce variety, and break up the monotony of the flower beds alone, which, when the plants are out of bloom, look naked and uninteresting; and for these reasons sheltered secluded nooks are much the best suited to gardens of this description, with which they harmonise completely, and afford a good contrast to the more conspicuous flower garden plants, which should be concentrated where they meet the eye more fully.

The following list comprises what I formerly grew, nearly in the order of their blooming. No doubt additions may be made to the list, owing to the new varieties continually springing into notice. It would also make the list too long, by inserting all the species and varieties. I have, therefore, merely given the genera and principal species.

HARDY PLANTS, flowering from February onwards to May.—Daisies, many varieties; Hepaticas, single and double, red, white, and blue; Primroses, single and double, various; Polyanthus, all the varieties; Heartsease, all the varieties; Violets, ditto; Helleborus niger, olympicus, and others; Primula helvetica, nivalis, cortusoides, calycina, and others; Phlox procumbens, subulata, nivalis, and setacea; Anemone ranunculoides, nemorosa, appennina, Pavonia, palmata, and garden varieties; Saxifraga cæspitosa, granulata, retusa, and many others;

Tussilago fragrans; *Arabis albidia rosea*; *Aubrietia purpurea*; *Alyssum saxatile*; *Omphalodes verna*; *Stellaria holostea*, and others; *Claytonia virginiana lanceolata*; *Erianthus hyemalis*; *Ficaria ranunculoides plena*; *Gentiana verna*, *acaulis*, and others; *Potentilla verna* and a few others, *Corydalis bulbosa*, *Thalictrum anemonioides plena*; *Adonis vernalis*, &c.; *Doronicum caucasicum*, and others; *Cardamine pratensis plena* and others; *Veronica officinalis* and others; *Soldanella alpina plena*; *Cortusa Marshalli* and garden varieties; *Dodecatheon medea* and varieties; *Asperula odorata*; *Ranunculus*, many varieties; *Iris humilis*, *nepalensis*, *pumila*, and many others; *Onosma*, several kinds.

BULBS.—*Galanthus plicatus* and others; *Cyclamen Coum*, *vernum*, and all the spring-flowering kinds; *Scilla*, all the spring-flowering species; *Hyacinths*, all the species and varieties; *Crocus*, ditto; *Tulips*, *Jonquils*, and *Narcissus*, all the kinds; *Iris tuberosa* and *persica*; *Fritillaria*, all the varieties; *Erythronium* ditto; *Bulbocodium* species; *Trillium* species; *Muscari*, ditto; *Lachenalia* species; *Ornithogalum fimbriatum*.

The above includes most of the genera and species I grew. The showiest of them will, of course, be selected to grow in larger quantities, and others for particular purposes. Since the time of which I speak, some good things have been added, which I will give you in a supplement, and will forward you the list from April to July, in time for your next number.

C. McL.

CALENDAR FOR THE MONTH.

Hardy Fruit.—Doubtless, this is the best time for removing and replanting large fruit-trees, either to fill vacancies, or merely lifting them to induce fruitfulness; the latter is most applicable to Pear-trees that are making strong growth, or for the object of keeping the roots near the surface, where the subsoil is unfavourable to the health of the trees. Every kind of fruit-tree may now be planted with advantage, and in the renewal of wall-trees, if the border is old, it should be well trenched to its full width, and fresh loam from a pasture added as the work proceeds. Avoid strong manures, but after the trees are planted the surface should be mulched, to encourage them to root at once. Secure standard trees to stakes after planting. Go over Peach and Nectarine trees with a soft broom to remove the ripe leaves, for the purpose of admitting sun and air to ripen the wood. All other fruit-trees that have shed their leaves may now be pruned, and if they are infested with any scale or Moss, they should be painted over with a mixture of soft soap and tobacco-water before they are nailed. Strong lime-water will destroy Moss. Look over the fruit store often, and remove all decayed fruit. Give air till the sweating process is over, after which time the room should be closed. Some kinds of Pears are improved in flavour by placing them in a warm room or vinery a few days before they are used. Any late Apples or Pears remaining on the trees should be gathered at once. **Forcing Ground.**—If early Asparagus is required, the roots should now be lifted and placed in a frame or forcing-house where a moderate heat can be maintained. Place the roots thickly together, and cover with six inches of light soil or leaf-mould; keep the frame close till the heads begin to appear. Roots of Seakale may also be taken up and placed in a gentle heat, covering the

crowns with coal-ashes, or other dry material, to blanch them. A few roots of Rhubarb should be placed in heat by the end of the month for the early crop. Sow successions of Mustard and Cress, and place a few pots of Mint and Tarragon in gentle heat. Take up Chicory-roots, and place them in the Mushroom-house or cellar, to grow and blanch. Mushroom beds intended to produce the winter supply should now be made; keep a moist atmosphere in the house, but use water sparingly on the beds. *Cucumbers*.—Plant out those sown last month. Maintain a heat of 75° , and give air every day when the weather is favourable. Use water about the same temperature as the air of the house. *Plums and Cherries*.—All pot plants intended for forcing should now be examined; shift all those requiring more pot-room, and when finished plunge the pots in leaves to protect the roots from frost; young trees may now be potted for succession. *Peach House*.—Place the sashes on the early house. If early Peaches are required, finish tying the trees and close the house at night, but do not apply artificial heat for the present. *Strawberries*.—Protect the pots from frost and drenching rain by placing them in cold frames, or plunging them sideways in ridges of coal-ashes or Fern. *Pines*.—A steady bottom heat, from 75° to 80° , should be kept in the succession pits, and the top heat may range from 65° to 75° , according to the state of the weather. Air should be admitted every mild day. The fruiting-pits may range 5° higher, and a moist atmosphere maintained. Pot suckers as they are taken from the stools. *Vinery*.—If the early house was closed last month, a little fire heat may be given in cold weather to keep the temperature about 60° by day, and not lower than 45° by night. Syringe the Vines every day, and keep up a moist atmosphere by sprinkling the paths and flues occasionally. Give air on fine days, and raise the temperature 5° by the end of the month. Pot Vines intended for early fruiting should now be introduced. Give fire heat through the day in damp weather to *ripe* Grapes, at the same time air should be admitted.

Azaleas and Camellias.—Some of the specimens of Azaleas which were not allowed to bloom until late in the summer, and which, through want of room in a proper situation for them, were not encouraged even then to make growth as they ought to have been, may still require keeping in warmth, &c., in order to get them properly set. Such plants should be kept in the stove, or the warmest house in which room can be found for them; but they must be kept free from black thrips, carefully supplied with water at the root, and the atmosphere should be kept moderately moist. Our own rule is to keep backward plants in heat until they are properly set, if this should not be before Christmas, for we have no fancy for growing these, especially large plants, two seasons for one bloom. Look over and attend to last month's directions. Plants which set for flower early in the season and have had a period of rest may, if necessary to provide a supply of bloom, be put into a warm moist temperature, and may be had finely in flower by Christmas; but they must be afforded a moist atmosphere, be kept perfectly clear of black thrips, and be carefully attended to with water at the root. The best varieties we know for early forcing are *Amœna* and *Bealii*, but any of the varieties, if properly prepared, will answer; such, however, as

are known to move the earliest in spring should be preferred, and the small-leaved varieties, as *variegata*, &c., should not be used for this purpose. Some of the Camellias which set their buds early will be coming into bloom; and these should be placed in conspicuous situations and assisted with weak manure water, especially plants which have rather too many buds for their strength, and where flowers are in demand a selection of plants that have well swelled their buds may be placed in a gentle warmth. It is not advisable, however, to subject Camellias to much artificial heat for the purpose of forcing them to open their flowers, for the result generally is blooms much smaller than the natural size; but, by the aid of gentle heat, they may be forwarded very much without sustaining the slightest injury. In all attempts at forcing these, however, be very careful to keep the plants properly supplied with water at the root, otherwise the buds will probably drop. Take advantage of unfavourable weather for out-door work, to get the foliage, &c., of large specimens cleaned when necessary. Keep the general stock cool, giving air freely on mild days, and use fire-heat only to exclude frost, and see that the plants are properly supplied with water at the root, as any excess would be very injurious.

Conservatory.—Where this house is occupied by plants from the stove, the greenhouse, and any other house, which will furnish a plant in bloom, as is too frequently the case, it will be a difficult matter to manage it so as to make it suitable for its various inmates. For mixed houses of this kind, fires will be necessary to slightly warm the atmosphere even during comparatively mild weather, and also to allow of ventilating sufficiently to prevent tender things being injured by damp. Use fire-heat as sparingly as can safely be done, however, and endeavour to keep the things requiring warmth as much together at the warmest end of the house as circumstances will admit, and give air very sparingly against these. When the Chrysanthemums and winter-blooming Heaths are introduced, these must be afforded a free circulation of air on every favourable opportunity; and then it will be advisable to dispense with such things as require warmth, for it is nearly impossible to properly accommodate these and Chrysanthemums in the same house. See that everything about the house is perfectly clean, and do not overcrowd the plants, and aim at maintaining perfect order and neatness. Look over and attend to last month's directions.

Cold Frames.—Where hard-wooded plants have to be accommodated here at this season, they will require very careful management to prevent their being injured by damp, &c., especially things which are rather tender, or others, the young wood of which is not well ripened. Give air freely whenever the weather will permit, and endeavour to water on the mornings of bright days, so that the superfluous moisture may be dried up before shutting up. Be prepared with efficient covering in case of frost. Cinerarias will now be growing very freely and will require to be carefully looked after, to prevent their being injured by damp, mildew, and aphis. Give air freely on mild days and keep the plants near the glass, and do not place them too close to each other. Plants intended for specimens should be stopped as soon as they have made four or five joints, and none of them should feel the want of pot room until they

have had their final shift. *Calceolarias* should also be growing freely now, and should also receive every possible attention. Smoke gently on the first appearance of aphids. Keep rather close, especially plants that are not inclined to grow vigorously, and water carefully and rather sparingly, and, when water must be given, endeavour to get the foliage dry before shutting up at night. *Flower Garden*.—Where a spring display is to be attempted here, the beds should be cleared at once, prepared and planted with bulbs, &c.; and even where the beds are not intended to be filled with plants for blooming in spring they should be cleared, dug up, and partially filled with small evergreens for the winter; or if only dug up and neatly edged, &c., they will look better than with the remains of their summer occupants. Give air freely on every favourable occasion to *Verbenas* and other autumn struck cuttings, and endeavour to get these well established and hardened before the winter fairly sets in. Look over the stock of *Calceolarias* and other recently put-in cuttings, and make up any deficiencies, either by putting in more cuttings or potting up some of the old plants before these are destroyed by frost.

FLORISTS' FLOWERS.

Auriculas.—The dormant state of these flowers now commences, and everything should be avoided to stimulate them. Plenty of air during mild weather and but little water; in fact, it is better not to water until the plant begins to look flaccid. Pick off all decaying leaves, and see that there is no green-fly. *Carnations and Picotees*.—The season has been a very late one, and perhaps few can remember the layers so indifferently rooted at such a late period of the year, consequently, as the plants are rather "lishy," care will have to be taken that damp does not affect them; at all times this is more to be dreaded than frost. *Dahlias*.—The storing of these tubers for the winter must now be looked to. They should be taken up on a fine day, and left in some airy place until they are dry enough to stow away; a dry cellar is about as good a place as any for them. *Pansies*.—As with *Carnations*, remember damp is your greatest enemy, so give plenty of air. Keep the pots well clear of one another, and do not let them have any drenching rain. I, of course, speak only of *Pansies* in pots, for it is almost hopeless to attempt their cultivation in the open border without their falling a prey to slugs, &c., at blooming time. *Pelargoniums*.—If plants are desired for exhibition, they should now be tied and pegged out and air and light freely given to them. Watch carefully for green-fly, and, if it appears, fumigate freely. In watering, be careful to avoid dribbling it out, although it will not do either for the plants to be *soddened*; keep clear of extremes. If the weather be cold and foggy light a fire, giving air at the same time. *Pinks*.—The only attention that these will require will be to keep the beds clear from weeds and dead foliage; they may now fight their own way. *Roses*.—This is the best month in the year for planting. Tea-scented and new kinds are better in pots, the latter not having been yet acclimatized. A reference to a paper in this month's number may be a guide to some as to new purchases.

Deal, Oct 22.

D.



1. *Celosia Aurea*.
2. *Celosia Crimson Var.*

Plate 171.

CELOSIA AUREA AND COCCINEA.

(PLATE 171.)

THESE charming annuals being by no means so generally known as they ought to be, deserve to be strongly recommended as most useful plants for conservatory decoration in autumn and winter. We know of nothing to equal them, either for the brilliancy of their finely-tassellated spikes of flowers, which vary from a rich golden yellow to the crimson of the common Cockscomb, or for the length of time they last in bloom; and anyone who can manage Cockscombs successfully cannot fail in producing fine specimens of these charming plants.

A few words on their culture may, however, be acceptable to some of our readers who have not had the opportunity of growing them.

In February or the beginning of March sow the seeds in light soil, and place them in a Cucumber pit or house where a tolerably brisk temperature is kept up. As the seeds will sometimes lay a considerable time before germinating, it is desirable that the pans or pots the seed has been sown in should be kept for several weeks after the first lot of plants has come up, as others will follow in succession. Pot them off into small pots as soon as they get strong enough to handle. Shift them successively into larger pots as the roots come in contact with the pots they are already in, bearing in mind that Celosias, like many other annual plants, require to be kept growing to their full size without the least check, for if they once become pot-bound it is a difficult matter to get them into large and fine specimens afterwards. The soil most suitable for them is two parts turfy loam to one of deer-droppings or well-rotted manure, with a good sprinkling of sand, keeping them in a nice growing temperature of from 60° to 70°; this will induce them to grow luxuriantly, and will also prevent the attack of red-spider, which appears to be the only pest they are subject to. Eleven-inch pots will be found large enough to flower them in, as plants can be grown in that size pot from 3 to 4 feet high, and as much in diameter, furnishing numerous spikes in the case of the yellow variety of rich feathery golden flowers, and crimson tufts on the other; these, when mixed with *Salvia splendens*, *Lilium lancifolium album*, *Heterocentrum roseum*, and a few other autumn-flowering plants, make a splendid display for a late show of bloom and compel us to forget the season, being as gay as anything that can be produced in spring or summer.

We look forward to the general cultivation of these Celosias in every establishment where plants for autumn decoration

are required ; the length of time they will continue in bloom, added to their suitability for making up tazzas and baskets in the drawing-room, point them out as being invaluable to the gardener and plant furnisher at a season when plants with good warm lasting colours are much wanted.

REMARKS ON THE INFLUENCE OF CLIMATE ON THE PEAR.

THAT the fruit of the Pear is greatly improved in quality when grown in certain localities, in comparison with others, is a fact not altogether new to pomologists ; but as far as my knowledge of the subject extends, no reliable investigation of the question has yet taken place, and we have therefore no correct data as to the extent of the improvement, whether it is owing solely to climatic influences, or partly to climate and partly to soil, is unknown, and consequently no rule can be laid down by which to shape our treatment, so as to realise the rich and melting qualities which characterise the Pear when grown in the perfection it is capable of reaching in a suitable climate. By way then of introducing the subject to your fruit-growing readers, I send you my own observations on this question.

When paying my annual visit to France, which I contrive shall take place in the Pear season, *i.e.*, from the beginning of October to the middle of November, I have almost invariably found the Pears to be better in quality as I travel westward from Paris towards Bretagne, Poiteau, and Normandy. I have frequently tried the same kind of fruit at Paris, Angers, Nantes, Rennes, St. Brieux, and also more to the north, in L'Eure and Normandy, and the opinion I have arrived at is, that the Pears of Lower Brittany and the valley of the Loire, and even the west coast of Normandy, are superior to those of Paris, and better still than those of Belgium ; and I think I may even go further, and say that the improvement progressed westward, so far as my recollection of tasting fruit from day to day while travelling enabled me to form an opinion ; on this, however, I do not intend to speak positively, as the difference in culture must have influenced more or less what I partook of ; but my liking for fruit generally, and Pears in particular, induced me to try all I could obtain in every town I visited, and when in Paris a fruiterer in the Palais Royale, to whom I named the subject, gave it me as his opinion that Pears from the west of France were superior to those of Paris and Belgium, and even of the south. Following up this idea, I have taken some pains to investigate the quality of Pears grown in Britain. To commence, I need scarcely point to the Chaumontelle and some other kinds of Pears grown in the Channel Islands, as the superiority of Jersey Chaumontelles is well known to every fruiterer and fruit-eater ; indeed, I do not myself recollect ever eating a perfectly melting Chaumontelle Pear grown in England ; and yet they are not uncommonly fruited on walls, and tended with all the

care which our gardeners know so well how to give. The same remark applies to Beurré Gris, Duchesse d'Angoulême, Poire d'Arenberg, and the Doyennés, which are met with plentifully in Jersey, and are so delicious in flavour and buttery in texture, qualities not always constant in the same kind of fruit when grown in our best gardens in the middle of England. I remember once paying a visit to that enthusiastic Pear grower and most hospitable gentleman, the late Mr. Catt, of Newhaven, on the Sussex coast. His fruits were most superb in appearance, and what I tasted were delicious. He had a fine collection growing near the shore, which altogether reminded me more of French Pears than any I have yet seen in Britain as to flavour, excepting perhaps what I saw and tasted at Arundel Castle on the same coast. I have seen quite as fine looking fruit at Frogmore (even finer) and Oatlands; but as I have not tasted the former, I cannot judge, but of the latter I gave the preference decidedly to the Sussex fruit. I have also met with really fine Pears in the Isle of Wight, though not so well cultivated as in Sussex. I believe very fine Pears have been exhibited from Scotland, but these I have neither seen nor tasted. In the south of Ireland I have seen magnificent fruit; I remember once, in Limerick, being shown the garden of a gentleman living in the town who had a fine collection of Pears in fruit, and which were nearly as large as any I ever saw in France; and I was told their good qualities were equal to their appearance. In the garden of a medical friend in the county of Cork, I have eaten Pears of the first quality, and possessing that soft melting tenderness which is the best, and indeed only criterion of excellence in the Pear. The deductions I draw from the above facts, although limited and unsupported by any other authority, so far as I am aware, lead me to the conviction that a somewhat moist atmosphere (I will not say sea atmosphere) is more favourable for perfecting the best qualities of the Pear, when combined with a sufficiently warm temperature to ripen the fruit, than a dry one; although I believe this opinion is not generally entertained. I wish, however, your readers to consider the question for themselves, and also to direct the attention of the Fruit Committee of the Horticultural Society to the subject, as that body has it in its power to obtain much valuable information on the matter.

So far as I am enabled to judge, I consider the most favourable climate for the Pear to be that found within a few miles of the sea; in such situations spring frosts are not so destructive to the bloom in the spring as more inland situations. I believe, too, that the temperature during the period in which the fruit is swelling, is more uniform, and that this, combined with the greater moisture of the air, produces the best effect on the quality of the fruit. At least those kinds of Pears I have tasted in the west of France, in the south-east of England, and the south of Ireland, afford *prima facie* evidence that such is the fact; but as I have already stated, more extended experiments are wanted, before we can pronounce that such is the case *de facto*. Further, a pomological friend in America informs me that Pears are usually higher flavoured in wet seasons than dry ones; and have we not some additional evidence in the fact of the immense size (and I dare say superior flavour) of the Pear in the moist climate of California.

As Pears have become in many districts in this country fit subjects for orchard-house culture, and very properly so, for I look upon a well-grown Pear as one of the finest fruits on Pomona's list, the experiment might easily be tried, as a very slight change of treatment would produce a genial temperature; a few degrees less heat than what will ripen the Peach, and a slight addition to the moisture of the atmosphere, is all that is required, supposing Pears only are grown, and these conditions every orchard-house can supply. Such an effect would produce large fruit, perfectly melting, and entirely free from grittiness or stringiness, and with the delicious aroma which a good Pear, like good wine, should possess, when in perfection. Will any one try this, and report the result?

[There is much valuable suggestive matter for pomologists in the above.—Ed. *Florist*, &c.]

VISITS TO NURSERIES.—No. IV.
MR. JOHN STANDISH, ROYAL NURSERY, BAGSHOT.

ALBERT SMITH, in one of his amusing entertainments, used, in describing some particularly dreary place, to say, "it was a place where nobody could live, just as you know nobody could live at Woking." And certainly anything more wretched than the view one has of it, when passing along on the Southampton line, cannot be well imagined—desolate enough for some moorland district in Scotland, not for a county so full of beautiful scenery as Surrey; and then its adjuncts are not of a particularly lively character—a cemetery at one end, and a prison for invalid convicts at the other, do not indicate much of man's efforts to add cheerfulness to the scene: and yet, like a great many other things (sing'd cats amongst the rest), it is better than it looks. The railway goes through the worst part of it, and a more intimate acquaintance revealed much warm-hearted hospitality and some very pretty scenery; and more than that, that this neighbourhood is to the grower of American plants, Conifers, and shrubs, what Hertfordshire is to the Rose growers, the peaty and sandy character of the soil being admirably adapted for the purpose; and I could see that Mr. Standish, in settling down in such a neighbourhood, had wisely given the greater portion of his attention to those plants which thrive best in this soil and situation, viz., those which go under the name of American plants. Not that Woking is the way to get to Bagshot; it is a way, and a roundabout one too, the nearest station being a much more enticing one both in situation and name, Sunningdale, on the London and Reading branch of the South-Western line, not more than two miles and a half from Bagshot; but it was by Woking I was compelled to reach my destination. Amongst the many nurseries in this neighbourhood—those of Waterer, and Godfrey Baker, Noble, Donald, Jackman, and others—there is a peculiar interest attaching to Mr. Standish, from the fact that Mr. Robert Fortune was connected with him in his late Chinese expedition, and is also in his

present one to Japan, so that all the novelties that that experienced and able collector may obtain will find their way to Mr. Standish, as already a large number have done. The climate both of the north of China and the mountainous districts of Japan being such that the greater number of things sent home are hardy, greatly increases their interest, as they will doubtless in a short time find their way into many gardens, and add much to the features of our present too flat and kaleidoscopic system of bedding-out. Nor is this all; to the enterprise and perseverance of Mr. Watson, who went out under Mr. Standish's auspices to New Zealand, the floricultural world is indebted for the introduction not only of those magnificent Tree Ferns, collected with no little trouble amongst the supplejacks and entanglements of the New Zealand forests, which in a short time will be found in every large conservatory, but also of numerous varieties of the Filmy Ferns, which in a short time will completely, I venture to say, revolutionise the whole system of Wardian cases; the sorts hitherto grown in these, being of rapid growth, very soon fill the cases, but these New Zealand ones, of beautiful foliage, and yet slow in attaining any size, will be just the thing. It might be easily supposed, then, that with correspondents in China and New Zealand, and he himself intimately connected with the French growers, there was a good deal to see and talk about, and, amidst the *embarras des richesses*, I shall endeavour to cull out some things that may be interesting.

Mr. Standish has been now twenty-three years in his present position, and from a very small beginning has gradually increased his business, so that it is now rather difficult to give an idea of its extent. His principal object seems to be to get together large quantities, and to dispose of them in the same way, principally in the trade; hence, his business is more of the wholesale than retail character. It may give some idea to say that of the *Cordylines*, which are advertised in his catalogue at 21s. and 31s. 6d. each, he has from 15,000 to 20,000; of *Skimmia japonica*, 7,000; of *Rhododendron Nuttallii*, 10,000 seedlings; of other *Rhododendrons*, about 120,000 seedlings; of *Gladioli*, not less than 150,000 bulbs; and everything in similar quantity. He is the warm advocate of a liberal use of tiffany; in fact, it is to him, he says, invaluable, and in all parts of his grounds it is to be seen in use; one double-span roof of it, under which he had large quantities of *Torreya grandis*, was 88 feet long by 32 feet wide, and was erected for only 20%. Owing to the close and warm position in which the grafting of plants takes place (the scion not uniting unless there be heat and moisture), they are very apt, notwithstanding any care you may give in hardening off, when exposed to rough winds, to become scorched and checked, so as not to recover for twelve months the violence of the shock the system receives; but by planting out under tiffany, all this is obviated; moisture comes through, but *Rhododendrons* and such-like things like that; while, notwithstanding its fragile appearance, it is not liable to be destroyed by wind as a good deal blows through it; different in this respect from stronger and stouter material; it also affords excellent shade from the scorching rays of the sun. These qualifications fit it most admirably for all such purposes. It is rendered more durable

by immersing it in a solution of sulphate of copper, one pound to four gallons. Mr. Shaw, the introducer of it, has also recently made a closer material for covering up, instead of bast mat; and Mr. Standish believes that, when this is used over tiffany, 20° of frost may be kept out; if so, it will be a great advantage to all small growers, whose little greenhouse is half filled during winter with the bedding-stuff for next year. The hybridising of Rhododendrons and other plants has been carried on to a great extent here, Mr. S. having raised more hybrid seedling Rhododendrons than any other grower in England, and by judicious selection has brought them to be hardy, of fine form, and late bloomers. His object has been to breed between two distinct *lines* of hybrids, so as to avoid breeding in and in, which, as in the case of first cousins, tends to deterioration in constitution, and these are points which should be attended to in all cross-breeding. The result of this care was seen in a very large piece of young plants, all of which looked healthy, though they, like everything else, this year, have made but little growth. I mentioned that Mr. Fortune's plants from North China have found their way here; amongst them are some fine things. *TORREYA GRANDIS* is, in its native habitat, a noble tree, rising to the height of 100 feet, and perfectly hardy; so much so, as to have stood the last winter out-of-doors at Hamburgh. Of this there were many thousands, the large ones in pots, and the others growing on to supply their places. *CAMELLIA RETICULATA FLORE PLENO* also promises to be a fine thing; it has all the large and brilliant appearance of the old reticulata, very free flowering, and the flowers are said to be eight inches across and perfectly imbricated, of a lively carmine colour; some of the plants are coming into bloom, so that in a short time its merits will be more decidedly seen. There is, moreover, a yellow Camellia, which is said to be quite hardy. There is also another new hardy plant—*LYCHNIS SENECIO*—from China, sent by Mr. Fortune, which is said to be very curious, bearing a head of three-coloured flowers. There is also *Areca sapida*, a fine greenhouse Palm; and also *CHAMÆROPS FORTUNII*, with very beautiful foliage. Amongst the New Zealand acquisitions are the two *Dracænas*, or rather *Cordylines*, as they are called now. *Banksia* and *Banksii erythrorachis*, growing to the height of about six feet, with long narrow leaves, the former having a white stripe up the centre of the leaves, and the latter a red one. These will come largely into requisition for the purposes of decoration, and will be—indeed, others allied to them are—extensively used by our Gallican neighbours for this purpose, and Mr. S. may well supply them—as he has from 15,000 to 20,000 plants. *CYATHEA CUNNINGHAMII* and *SMITHII* are two of the famous Tree Ferns, so called from the arborescent character of their growth, some of the stems being as thick as a man's body, and the fronds issuing from the top. There is also *Todea pellucida*, a very beautiful Fern, of moderate growth, though one of the plants which Mr. Standish has was the largest one Mr. Watson found in the New Zealand forests, and is supposed to be 200 years old. There are also several species of *Hymenophylla* and *Trichomanes*, such as *H. multifidum*, *æruginosum*, *flexuosum*, *pulcherrimum*, and *T. elongatum* and *reniforme*. These will be sent out in the spring, and owing to the cha-

rafter of the plants, and the situation in which they are found in their native habitat—viz., the dense foliage of the New Zealand forests—they will be admirably adapted for growing in Wardian cases, and Mr. S. is having some made of an ornamental character, for the purpose of showing their adaptability. Before leaving these new plants, let us not forget *ABIES MERTENSIANA* introduced from Vancouver's Island, a kind of Hemlock Spruce, but, unlike that, capable of bearing a dry, parched soil; also *WOODWARDIA ORIENTALIS*, a fine Fern, with fronds four feet long, introduced by Mr. Fortune from the north of China, and therefore hardy; it is one of those curious ones called viviparous, small plants being produced at the extremity of the fronds; and lastly, *Myosotidium nobile*, or Antarctic Forget-me-not, a fine foliaged and giant kind, though, I fear, miffy in its habit—doubtless, with true lovers, never to equal in interest our native *Myosotis*.

As the introducer of Eugene Appert and Celine Forestier, Mr. Standish has made good his claim to the consideration of Rose growers. The former, he tells me, has proved commercially a most valuable Rose, and though some said it was not so very good, and others said it was like other Roses, yet the Rose-growing public in general, who are the best and most disinterested judges, *will* have it; its noble growth promises to make it a fine pillar or climbing Rose, for I saw shoots of this year five feet long and three-quarters of an inch thick. The soil of Bagshot is not adapted for Roses, but Mr. S. has just taken a piece of ten acres for the purpose of growing specimen Rhododendrons, and in it there is a piece which he thinks will grow them well. He has just returned from France, where he has purchased 200*l.* worth of new sorts, including four seedlings of M. Trouillard, which will not, of course, be let out before another season. One of them, Gregoire Bourdilion, the raiser, pronounces to be the finest Rose ever grown, being finer in outline than Eugene Appert and Géant, and of the same vivid colour. Amongst the new ones of this season, of which there are upwards of forty, I heard very highly spoken of La Boule d'Or, a perfectly yellow Tea, raised by Margottin, said to be large and of good shape; MADAME FURTADOT, a large pink flower, in the style of *Madame de Cambaceres*; TRIOMPHE D'AMIENS, a distinctly striped Rose, and General Washington and Jean Bart, two high-coloured varieties. The soil and situation of Bagshot are admirably adapted for Tea Roses, and there is a plot being planted out, to be covered with the invaluable tiffany when needed, which will enable them to be thoroughly tested. COMTE DE FALLOUX still bears out its character of being the very best Rose for forcing purposes—not a shoot but what has a bloom at the top;—while MADAME STANDISH, from its style of growth, will doubtless form a fine pillar Rose. These two Roses are seedlings of Trouillard also, and Mr. S. believes will be found acquisitions; the former is small, but every shoot produces a flower of brilliant colour. The constitution of Madame Standish* is just that which we want, and this is a point which in all new Roses ought to be paramount, for it becomes very tantalising, when a Rose comes over from France with a

* This is altogether different from one named Mrs. Standish.

high character, to find that it is so feeble in its habit that the colder and wetter climate of England kills all its vitality, and thus many of which we had high hopes vanish from growth altogether. If we can get such growth as Francois Arago, Eugene Appert, Madame Standish, Louise Carique, Victor Verdier, and others, new varieties will be much more looked after.

Mr. Standish's name is now much associated with that fashionable autumn flower the Gladiolus, and the varieties exhibited by him at the Crystal Palace and Floral Committee have made many converts to the growth of this very showy bulb. The soil of Bagshot is evidently favourable to them, but with a little care they may be made to grow in any garden. When people saw John Standish, Rev. Joshua Dix, and others, their mouths watered at the thought that there was only a bulb of each, and that it would be some years before they could be had. Not so fast: of the individual bulbs from which the blooms were cut, it is true, but all the spawn of these large bulbs was taken off last year, and are now blooming bulbs, so that anyone purchasing Mr. Standish's seedlings, at 50s. and 75s. per 100, may obtain duplicates of these varieties, and others as fine amongst them; and so little seed has been sowed this year, that it will not be likely that any rapid stride will be made for a year or two, though one is said to be coming over from France as yellow as a jonquil. The Gladiolus delights in a poor light soil, and when that is not the character of the place in which it is required to grow them, it is recommended that part of the soil be burned, and with this care one will be rewarded by a fine display in the autumn months.

Not only has attention of late years been paid to flowers, but fruits, especially Strawberries and Grapes, been greatly improved by hybridising. Mr. Standish has largely entered into the growth of the latter, and has to send out one raised by Mr. Ingram, the celebrated gardener at the Royal gardens, Frogmore, which he has named Ingram's Hardy Prolific Muscat, that it deserves its second name, may be gathered from the fact, that green young cuttings put in in May, 1859, bore fruit in May, 1860. One of the best judges of Grapes in the land pronounced it to be decidedly the richest and best flavoured of all the Grapes in existence. Should it, as anticipated, prove hardy, it will be a great gain to our gardens.

On the principle of "nil humanum, &c." Mr. Standish brought over some specimens of the new "Bombyx" which is just now making such a noise in France, as it feeds on the *Ailanthus glandulosa*, a much hardier and easier grown tree than the Mulberry; while the worm itself is more robust than the common silkworm, breeds faster, and spins a large quantity of silk. As the *Ailanthus* flourishes well in poor soil, large quantities of it will be planted in France, and it is hoped will become a valuable article in the economy of the silk trade.

I have thus endeavoured to give a brief sketch of the contents of this famous nursery, and although I have but skimmed it, I hope enough has been said to show its present and future importance. I cannot, however, give an idea of the kindness and hospitality with which I was treated, and which I am sure every one would meet with who went on a similar errand, to see and enquire on anything connected with the

glorious art of gardening; and I can only add, that when one sees the enterprise and energy which this one house exhibits, with its correspondents in far-off lands, the wonder ceases that England should occupy the position she does, as the foremost nation in the world in all connected with the gentle craft, for this is but a sample of many, and knowing, as I do now, a little of the nurserymen of England, I can say, *Ex uno disce omnes.*

Deal, Nov. 17.

ARTIFICIAL COMPOST FOR AMERICAN PLANTS.

PEAT soil for growing American plants is not always procurable in quantities for out-door cultivation. When the natural soil is unfavourable and peat is scarce I have made an artificial compost, which serves either to grow American plants by itself, or to mix with the natural loams, as I find about one-half compost mixed with one-half loam to grow many kinds of hardy Rhododendrons luxuriantly. This compost is also suitable for numerous other plants, and where there is any extent of woods or trees of any kind may be cheaply manufactured; and as this is the season for procuring the materials, I beg to send it you for insertion in the *Florist*.

Let the tree leaves which are collected at this season be taken to a convenient spot, where they may remain for a couple of years; as my best Oak leaves are usually retained for the pits, &c., those I employ for the present purpose are merely the waste leaves and rubbish swept up after the best are removed, and also the leaves of the Chestnut, Elm, &c., which are unfit for forcing purposes. As these leaves are formed into a stack I throw over them clean sand, in the proportion of two good barrow-loads of sand to a cart-load of leaves, and two barrow-loads of the droppings from cattle picked up from pasture-fields, and of course without straw. If sand is scarce, road-scrappings are a good substitute when the stone employed in repairing the roads is not limestone, for lime in any form American plants greatly dislike. To the above may be added the trimmings from hedges, old tan, saw-dust, long grass, moss, or any other kind of vegetable refuse of not too succulent a nature. I generally make the heaps sufficiently large to heat slightly, and where there is time they are turned over once or twice the first year and the same the second, by which time the materials are entirely decomposed and fit for use. I first tried the compost without the droppings, but I find it much superior when these are added. When using it, I generally add more sand for hardy Heaths and Kalmias; but Rhododendrons and Azaleas grow with the greatest vigour in it alone, or when mixed with a portion of loam for the hardier species, but the surface should be mulched, to prevent its drying too rapidly until the plants cover it by their branches. For Gladiolus, Liliams, Alstroemerias, and Fuchsias, planted in the open air, it is the best compost I ever saw, their growth in it being something extraordinary. If care is taken of what is usually cast away to a useless purpose, there are few places which may not have their American plants in perfection.

C.

ON THE ADDITION OF LEAVES TO AND DISBUDDING OF SHOW ROSES.

SOME time back I received a letter from a distinguished Rosarian in Berkshire—a most successful exhibitor of Roses at the National Rose Show and also at the Floral Hall, Covent Garden—stating that the judges at the Crystal Palace had disqualified several pans of Roses for the addition of a leaf or leaves, on July the 12th of this year. He added, “these two questions must shortly come before the public, viz., should it be permitted to competitors to add leaves to trusses and to disbud Roses? I wish you would express your mind in the *Florist*.”

I have been waiting several months to see if anyone would handle these subjects, but, as no one has done so, and as little can be said about fruits and flowers at this dull season of the year, I think of doing so before the Rose show commences; but still I should have been glad if some one with a higher position in the Rose world than myself had settled these points. Before I begin, let me say that my opinion on the first point is against my own interests, as I am exposed to most violent winds.

I think that in no case ought a single leaf to be added to any truss, much less ought leaves to be taken from one tree and added to a Rose which has been cut from another tree. This has been disposed of by the National Society, and I hope that every provincial society will adopt and enforce a similar rule. It ought not to be left to the judges for the time being to decide. It should be a standing rule not to be departed from. The judges at the National knew their duty, and they did it; and they deserve the thanks of every true rosarian. The object of a Rose show is not to win prizes merely, but to improve the public, and induce them to buy Roses of which they can form no sound opinion if leaves of any kind are permitted to be added. I have no doubt that the time is not far distant when, before prizes are distributed, Roses and flowers of all descriptions will be taken out of the cups and be minutely examined. One florist goes so far as to say, that “they ought to be cut in half” before the prizes are distributed.

With regard to disbudding Roses, I think that the question cannot be so easily settled, because there is greater facility of evasion. The beauty of all rules is this—that they are few, simple, such as cannot be evaded, and such as will be sure to be enforced. I think that the Rose in its early stage could be disbudded without detection by some judges, who know less of a Rose than they do of a Drumhead Cabbage, especially in country places; this arises from their not being conversant with Roses. In fact, no man who has not a large Rosary, or who has not paid great attention to Roses and studied their different habits, could for a certainty decide whether the Rose has been disbudded or not. Some Roses, such as *Maxime* and many others, will sometimes bloom without any corollary buds at all. Moreover, it is necessary at times to remove unsightly buds and buds that are too numerous and too close to the apex of the stem of the Rose to allow of its symmetrical expansion. If then, even for these purposes you allowed removal, you

would find it difficult to disallow it for other purposes. I think, therefore, that it must be left to every exhibitor to do as he likes; and that the judges should not sacrifice so many essential qualities, as they do, for mere size. Men disbud simply because they see that at all shows, metropolitan or provincial, size, irrespective of quality and other perfections, carries all before it.

As far as my own private opinion goes, I am for disallowing the addition of leaves, or even of a single leaf, and for permitting competitors to disbud or not, as they may deem conducive to the production of good specimens; and, further, I think that Roses which have their buds, and have the most good qualities, should not be vanquished by large (because disbudded) Roses, which, beyond size, may not have so many requisite perfections as more moderate-sized ones. Assuredly outline, disposition and thickness of petal, decision and thoroughness of colour, fulness to the centre without crowd and disorder of the petals—depth, width, and smoothness of petal, especially at the edges—are points to which the judges should chiefly look; and if large Roses with these qualities are produced, of course they must command the greatest attention.

Rushton, Nov. 21.

W. F. RADCLYFFE.

THE FLOWER QUEEN—HER NEW JEWELS.

PRE-EMINENTLY beautiful though the "Queen of Flowers" has always appeared, whenever we have been favoured with a gaze, either on a Court day, when seated on her emerald throne, and surrounded by loyal and admiring courtiers, or when free from the set formality of the reception-room, she has bent her lovely form to kiss the evening zephyr, we yet think there never was a prospect of her appearing to greater advantage than it is probable (all being well) she will, when next she shall grace with her presence the Palace of Crystal or the Garden of Kensington, for then, her peerless beauty will be enhanced by a new and magnificent crown of most exquisite gems. In other words, there is a probability that the Rose (who dare question her full right to the title "Reine des Fleurs") will stand forth next season in unprecedented brilliancy, for the new Roses of the present year are not only very numerous, but many of them are also very beautiful. Of the following I can speak with confidence, having carefully tested them when blooming in the establishment with which I have the honour to be connected.

N. America, salmony fawn and cream, a large, full, and noble flower, with fine habit.

T. Duc de Magenta, a splendid flower, large, double, and of exquisite form; colour delicate pale flesh tinted with fawn, petals large, and of fine waxy substance; foliage dark and handsome, and the habit good.

B. Victor Emmanuel, deep plum, colour rich and velvety, flowers large, full, and beautifully formed, habit good.

H.P. *Dunant*, deep brilliant carmine rose, beautifully tinted with violet, petals well disposed and smooth, flowers full, high in the centre, and exquisitely formed; a superb variety, with moderate habit.

H.P. *Le Royal Epoux*, brilliant rose changing to lilac rose, flowers large and well formed; a distinct and beautiful rose; habit vigorous.

H.P. *Louis XIV.*, a gem amongst gems; the colour of this variety, which is intense fiery crimson, with a blackish crimson centre, is rich and gorgeous in the extreme; the flowers are of good size, full and beautifully formed; foliage dark and habit good.

H.P. *Madame Boll*, a flower of unusually large size, very full and of exquisite form, colour delicate rosy peach, habit robust.

H.P. *Madame Charles Crapelet*, rosy scarlet, petals large, smooth, and of fine quality; flowers beautifully formed; a superb Rose, with fine foliage and free habit.

H.P. *Madame Louise Carique*, deep brilliant crimson; flowers large, full and finely formed; habit vigorous.

H.P. *Madame Pauline Villot*, brilliant deep rose; a large, full, exquisitely formed, and first-class flower; habit moderate.

H.P. *Mademoiselle Eugenie Verdier*, outer petals pearly white, centre delicate pale flesh, flowers full, finely formed, and of moderate size; a very beautiful and desirable Rose.

H.P. *Senateur Vaisse*; a good synonyme for this superb variety would be "General Jacqueminot surpassed." The colour is intense glowing scarlet, more brilliant than the General, and the flowers are large, exquisitely formed, and perfectly full; perhaps it would not be wrong to pronounce this superb Rose the "Lion" of the season.

H.P. *Triomphe de Lyons*, a truly splendid flower, colour rich crimson purple with fiery crimson and purple centre; the petals are of great substance, and the flowers large, full, and finely formed.

This variety is a seedling from Prince Leon, and is altogether a superb Rose, with a good robust short-jointed habit.

H.P. *Victor Verdier*, a noble flower in the way of Jules Margottin; outer petals deep rose, centre brilliant rose; the flowers are very large, with high centre and fine outline; an exquisite variety, both in colour and form.

All the above are really superb, and there are also many others which have every appearance of turning out first class, but of which it is impossible to speak with certainty from the experience of last season.

GULIELMUS.

THE FINALE.

THE littering leaves have ceased to fall, and the walks have had their final sweep. The bulbs have been put comfortably to bed, where they will sleep till the carolling of birds in early spring awakes their slumbers. The robin sang his dirge as we committed them to mother earth, but

more cheerful notes will greet them as they rise. The beds, though blank are neat, and whilst we look upon their nakedness we think what beauty lies in embryo. We take a survey of all around; the bright and shining evergreens delight us with their freshness, and the garden assumes a trim appearance seldom seen at other times. We now "rest on our oars" and think. We have made all our alterations, moved our old standards and planted new ones; we have nothing more to do but to anticipate. We look with interest on our new investments, and as we pass the "Countess" (we are told to call her so) we picture to our mind her lovely form and blooming cheeks, as portrayed by Mr. Andrews; we have given her a choice spot worthy of her rank and dignity. Near her stands the lovely Anna, as maid-in-waiting to her ladyship; and at her feet—quite suitor like—the winning Eugene Appert. We have placed Lord Palmerston next the Emperor Napoleon, knowing the intimacy that exists between them. How this may affect future legislation we know not. We entertain a hope—perhaps a vain one—that French Perpetuals may be put on a footing with the wines. *Senateur Vaisse* is within speaking distance, and probably may debate upon the subject; he has already felt the want of introduction to society in England by the heavy charges set upon him. We have winter clothed our "Teas," and littered well their roots, like delicate patients that require to have their feet kept warm. Notwithstanding the reputed hardness of our pet *Celine Forestier*, we have allotted her a warm and sheltered nook, with a south wall for her protection. We have too painful a recollection of last winter to risk her taking cold; we intend her to "come out" next season at our floral fête. *Madame Ball*, perhaps, will kindly chaperon her. In our care for all our favourites we have not forgotten *Miss Gray*; she has not behaved well this summer—perhaps the summer has not behaved well to her, so we forgive her; she has made strong wood and rampant shoots, therefore *Isabella* (like a Queen of the same name) may be said to look robust.

Having satisfactorily accomplished all our plans, we throw aside our spade. We have done all that can be done; even the last propagating pan has been used for bulbs; for, like experienced cooks, having mixed the ingredients well we have made so many "dirt pies" for in-door decoration in the spring; we trust they will turn out well and rise; the compost certainly was light enough. We take a glance at all our young stock and visit the Verbenas. Mildew has been forestalled by sulphur; we generally adopt this plan, remembering the adage "prevention is better than cure." The Hedewigi Pinks have rooted well, and look quite model little fellows, defying both damp and drought.

We take a last fond look and hasten to a warm fireside, where, with hands so rough and back so stiff, we seize upon our floral works and catalogues, pondering our purchases and reading the descriptions, till our false imagination sees their splendid blooms already placed upon the exhibition stand. It is well, perhaps, we do not know the future, or our ardour might receive a check; we will, however, endeavour to be

patient, and prepare ourselves for disappointment. In the meantime we wish our gardening friends a joyful Christmas when it comes, soon to be followed by a happy new year, made still happier by a glorious result of all their present labours.

Uffington.

R. T. E.

THE SIX OF SPADES.

CHAPTER XI.

THE PRESIDENT'S LECTURE—*continued.*

As a look, a gesture, a picture, a song, a perfume, may suddenly refer the mind to things and thoughts, forgotten half a life, so did this Rose, a *Salvator Rosa* to me, at once revive that early fondness for flowers, which had slept, as paralysed as Merlin in the oak, since my childhood laughed among the Cowslips. The ice broke with an instantaneous crash, and set the river free; the fog disappeared before that single sunbeam, as swiftly as the spectre army which beleaguered the walls of Prague; and it was summer-tide once more. Anatomists tell us of cases in which the brain, accidentally injured, or otherwise oppressed, has been relieved after long incapacity, and its powers restored; we have an account, for example, in a recent number of the "*Edinburgh Review*," and in an article upon "*Brain Difficulties*," of a young gentleman whose sagacity was considerably enhanced by a well-timed kick from a horse; and so was I on an analogous principle successfully trepanned by Dr. Rose, and my floral apprehension again put in working order. The clock struck only one, but, like the remorseful villain in the tragedy, I "remember to have heard a clock strike in my infancy—I am overcome—I burst into tears—and become a virtuous and exemplary character for ever afterwards."

Sitting in the garden one summer's evening with cigar and book, and looking up from the latter, during one of those vacant moods, in which the mind, like the jolly young waterman, is absorbed in "thinking about nothing at all," my eyes rested on a Rose. It glowed in the splendour of the setting sun with such an intense and burning crimson, the tints of vivid scarlet gleaming amid the purpler petals, as light in jewels or in dark red wine, that I shall never lose my first admiration for Rose *D'Aguesseau*, Gallica, although, having accomplished the mission entrusted to her by Flora for my restoration, she has never since appeared in my *Rosarium* in such resistless beauty. But I ever think fondly of my first fair love, remembering among a thousand charmers the darling of my early youth, as the heart of man is prone. Bluebeard himself, I do not doubt, was wont to muse with special satisfaction upon the fascination of that young lady, on whom he first lavished his affections, and subsequently tried his carving-knife.

The next evening found me in my accustomed seat, but my cigar was exchanged for a pencil, with which I was making careful notes, and my book was *Rivers on the Rose*. This dear little *Red Book*, *couleur de Rose*, so earnestly, so gracefully written in a language which, as Lord Macaulay says of *Livy's*, is "always fresh, always sweet,

always pure" (he might have been describing a Rose), this Guide to Amateurs, which has brought so much happiness to the neophyte, so much instruction to the learner, so many glad memories and genial sympathies to all Rose growers, quite completed my conversion. In that pleasant manual there is a hearty, loyal fondness for the theme, a truthfulness of description, which cannot fail to charm. It seems to say, with the perfumed earth in the Persian fable, "I am not the Rose, but cherish me, for we have dwelt together;" and there is fragrance as of Roses among its leaves. There can hardly be a treatise with less affectation and superfluity, so genuine, explicit, and natural, so exact a transcript of the mental man, from whom it comes, that when I made his acquaintance, some years after my transformation, he exactly verified my expectations, and it was like meeting with an old and valued friend.

And thus I discovered, if not "books in the running brooks," a most fascinating volume in the Rivers of Hertfordshire, and in I plunged, as keen as Cassius (to Cæsar's unspeakable disgust) and as eagerly as a hot schoolboy, taking "a header" into his favorite pool, truant, it may be, and destined after his ablutions to the coarsest kind of towelling, but for the time as oblivious of all the ills, which the fleshier part of youth is heir to, as though he bathed in Lethe. And just as this amphibious juvenile will emerge from time to time and diversify his sport by a periodical canter in the flowery mead, so I quitted *my* Rivers at intervals, and wandering among my Roses (I had but a dozen then) tendered my tardy but devoted allegiance. Or as a pupil at Dotheboys Hall would be requested, after spelling the word horse, to go and clean the quadruped in question, so I went from description to reality, first studying the portraits in my Book of Beauty, and then doing homage to those fair originals, born, or rather budded, so long to blush unseen, and waste their sweetness on my father's heir. How delighted I was, first to read, and then to have ocular proof, that *Boula de Nanteuil* was a "standard of excellence" (mine was only a half-standard, but let that pass); that *Kean* was "always beautiful, in size first-rate, and in shape perfection" (Mrs. Kean herself could not wish for a more flattering portrait); that *Coupe d'Hebé* was "the gem of the family," and there, sure enough, I found her, a cup for the gods and jewelled with dewdrops; and how disappointed I felt as I read that *Madame Laffay* "ought to be in every garden," but could not find her in mine, soon consoling myself, however, in the presence of *Baronne Prevost* and *Duchess of Sutherland*, and, on the whole, as well pleased with my new friends as was the author of my book when, one morning in June, looking over the first bed of Roses he had ever raised from seed, he saw growing with great vigour one of the very very few good Roses ever originated in England, our climate being as you know untoward for the sufficient ripening of the seed, and subsequently called, perhaps because robust in habit as poor Brummel's "fat friend," Rivers's *George the Fourth*.

If this account of my resuscitation, if the suddenness with which I cracked the cocoon of my Rose-hating grubship and came out a Rose-loving butterfly, appear to any of my hearers to be too severe a test of

their implicit confidence in the narrator (in coarser English, "a corker") I have testimony at hand to confirm my statements, and Mr. Evans is here, like the statue of Horatius, "to witness if I lie." He will readily recall his great astonishment, when I first began to speak to him of flowers; how he smiled encouragingly upon me as a mother upon the baby just "beginning to take notice" ("Bless it," exclaims Mamma, "it's worth a million a minute!" and Nurse immediately follows with, "Yes, Mum, two!"); and how he would gaze upon me with an expression of kindly hope, as though he were some good physician, watching in his patient the first symptoms of recovery from delirious fever. He will recollect how rapidly our Rosarium spread, since, as the Poet of the Seasons sings—

"By swift degrees the love of Nature works,
And warms the bosom, till at last sublimed
To rapture and enthusiastic heat,"

until it finally invaded the kitchen-garden, and drove out the Asparagus at the point of the digging-fork; and he will rejoice with me in remembering the time when our hostilities terminated; when Mars was to influence us no more, although that deity, according to Hesiod, was the son of a flower, and not of a gun, as one would be more disposed to imagine; when we turned our bayonets into pruning-knives, our swords into scythes, our mortars into garden-rollers, our helmets into flower-pots, our uniforms into shreds for the wall-trees, and our trumpet of war into a bird-tenter's horn.

CHAPTER XII.

THE PRESIDENT'S LECTURE—*concluded*.

You have seen a well-bred hunter turned out for his summer's run, when the soft showers of April have made the grasses green, and ere the suns of May, opening the Buttercups, have converted every pasture into a Field of the Cloth of Gold. For half a dozen seconds, when the groom has quietly slipped over his nose the old "exercising bridle" which he knows so well, he stands gazing in amazement and perplexity, astonished, as some rustic, who, having formed his idea of cities from the occasional contemplation of a small market-town in the distance, sees for the first time from some commanding height great London spread out before him. Hardly, at first, can he (I am referring now to the nobler animal of the two, the horse)—hardly at first can he realise his freedom; it seems to him too good to be true; but suddenly he apprehends the happiness of his state, and with a wild whinney of delight he is away at speed, kicking as he goes, and giving ample demonstration to eye and ear that he thoroughly appreciates his new liberty, and takes leave of the stable in a somewhat disrespectful way. By and bye he may condescend to a majestic trot, coming towards you with head erect, lithe, supple, elastic, "scarcely touching the ground, he's so proud and elate," and exhibiting a dignity, and grace, and power, which you can see in no other animal, and only in him when thus unusually excited. After awhile, perhaps, he may treat eye and nostril to a sight and scent of the young, tender herbage; but he is much too

happy to eat. Were he less so, he would hesitate where to begin, like some schoolboy, whom you treat at the confectioner's, and bid, in Leah's words, "take all." But now he has youth's gladness without its appetite, and he is racing off again, head down and heels in the air, as though about to rehearse a series of somersaults for the edification of some favoured hippodrome.

A like joyous consternation, a like embarrasment of happiness are mine, my friends, when released from the introductory part of my lecture, from my allegorical snaffle, I find myself free to expatiate upon a field—of Roses, turned out as it were into the "*rosea rura Velini*," into those Rose fields near Ghazepoor, which the great Bishop Heber tells us extended over many hundred acres, or into that "beautiful plain covered with innumerable Roses," of which we read in the more recent "Wanderings of an Artist." So let me have a metaphorical gallop to relieve my exuberance of delight; or rather, since the Rosarium is not good galloping ground, let me, like some nightingale just arrived in a Rose nursery, and who can "scarce get out his notes for joy," take a preliminary fly over the premises, with obligato and irregular music, ere I settle down to sing in a more measured time and in a more usual key.

Hurra then for the royal Rose! for a Queen who, like our own Victoria, reigns the wide world over in loving hearts. Hurra for old England's emblem, emblem true of a happy land, whose sons flush quickly with a righteous anger to resent injustice and to defend the right, and whose daughters blush with a roseate beauty, with the "shame, which is a glory and a grace." Hurra for the precious, perfumed flower, which, for seven months of our fickle and inclement year, give its welcome beauty to high and low, admired and loved by us all, from the patrician, who sees it in the golden epergne of the banquet, to the ploughboy, who sticks it in his coat o' Sundays, and seems to his younger brother, learning his Collect, an embodiment of earthly bliss, just as to a junior at Eton a gorgeous fraternity in the Guards appears to be a demigod (principally demme) in whom perfection culminates. Hurra for the flower, which in all history, sacred and secular, maintains priority of praise; which the Greeks named *to anthos*, the flower, and which all their poets, heroic, pastoral, sentimental, comic, Homer, Theocritus, Aristophanes, and "burning Sappho," sang; which the Romans strewed before their victorious chiefs, chose first to ornament their homes and feasts, and even offered to their Gods; which all nations, emancipated from barbarism, have ever fondly cherished; which displays its charms, as our English girls their loveliness, with an infinite variety of form, grace, and complexion, now *petite* as some pocket Venus (anglicé, "a little duck") and now beautiful abundantly.

"A daughter of the gods, divinely fair,

And most divinely tall."

(colloquially, "a glorious girl, Sir"); which, only requiring in ordinary gardens the smallest share of attention to ensure an ample bloom, may be induced by a patient and careful love to reveal its glories under adverse skies—was there not, at the Third National Rose Show, in the Crystal Palace, a basket of beauties, "grown within three miles

of the Post-office by Shirley Hibberd?" which finally, my Mattocks, is the Queen of flowers, Rosa Mundi, perfect, peerless! "*True*," says the French proverb, "*true aime mieux bran que Roses*," the sow would rather have its nose in the swill-tub than smelling the sweetest posey; and he is a hog who does not love the Rose.

There! The hunter has had his gallop round the "*rosea rura*," the nightingale alights breathless in this bower of Roses by *Bendigo's* stream (as a Nottinghamshire Rose grower in his garden by the silvery Trent might be inclined to misquote the line) and we will moderate our pace now if you please and pitch our note an octave lower.

But we follow, though more slowly, the same route; the refrain of our song may not be changed, *Rose est Bonheur*, the Rose is happiness!

To review then more calmly and to demonstrate more practically what I have said, I will speak first of the Rose's popularity. In March last (1860) I received an application from a society of working men at Nottingham, inviting me to assist at their "Rose Show," which they proposed to hold on Easter Monday. As I had not at that time a Rose-bud in my possession, and never entertained the idea of an artizan with a conservatory, I came to the conclusion that some facetious friend was enlivening himself at my expense, and I wrote back, curtly, enquiring what particular Roses were so kind as to bloom at Nottingham three months before they condescended to appear in other less favoured localities? The reply, that the flowers intended for exhibition were grown under glass in pots, made me thoroughly ashamed of my incredulity, and on Easter Monday, 9th April, I set forth in a snow storm, not daring to reveal my mission to any one, for who was likely to believe me, and travelled forty miles in all by rail and road for the show. Never was journey more delightfully recompensed. Driving through sleet and sludge to the "General Cathcart," the weather painfully recalling that hero on the hills of the Crimea, I found, to my sudden but complete happiness, a long table covered with Roses! Yes, there were our summer sweethearts, fresh and fair, smiling at the hail which pattered against the windows, as though reproving them for their precocious forwardness. Ah, did we not enjoy our stolen kisses, the bright glowing tints, the shining foliage, the delicious perfume! Had we not a genial, joyous time of it, praising and comparing our charmers! Rose growers, all of us, we said our say without reserve or restraint, smoking our pipes, and no more standing on ceremony than the Roses, which stood in porter bottles! Then, after an hour's thorough enjoyment, I went, with the most successful trainer of the day, T. Flinders, jun., and a very pleasant companion I found him, from the race-course to the stables, from the show to the greenhouses, some of them so small that I, being of extra size, and wearing a winter over-coat, was compelled to remain outside, and all of them belonging to working men, who, living in the town, often come long distances, before and after a hard day's labour, to attend to firing and watering, and to wait with an affection, which defies all difficulties, upon their lovely mistress, the Rose. I went home with my heart full of pleasant thoughts, and with my hands full of such winsome flowers as made every passenger in the train livid with envy.

Passing over a thousand intermediate examples, and skipping to the top of the social staircase, let us again suppose ourselves, three months later in the season, at the third National Rose Show in the Crystal Palace. Do you see a lady in mourning, elbowed by the unscrupulous, anxious crowd, but making her way good humouredly as best she can, evidently charmed with the spectacle, and taking notes with all the enthusiasm of an amateur? It is the Duchess of Sutherland, it is the Mistress of the Robes, waiting upon the only Queen in all the world more beautifully robed than her own. She bends in fond allegiance, but not more loyally, not more tenderly, not more heartily than those earnest men who win their daily bread at Nottingham.

For duration, in the next place, what flower dare upraise her head to dispute the supremacy of the Rose. "Gather ye Roses, while ye may," says old Herrick, and with us Rose growers is it not almost "always *May?*" From that month to December, at all events, from the first blooms of the charming *Banksiae* and of *Lamarque* on our warm south walls, until the last *Giant of Battles* must yield to Jack, the Giant-killer, Frost, we subjects of Queen Rosa may wear in our button-holes "of loyalty this token true." Whatsoever the weather in the intermediate months, however "deformed by sullen rains," or by continuous drought, a Rose tree, in good health to begin with, will have its bloom sooner or later; and, because different seasons suit different sorts, some trees in the Rosarium will ever assume for our delectation their most perfect phase of beauty.

Consider, too, not only their diversity of colour,—and if you wish for special examples of this compare *Cloth of Gold* with *Boula de Nanteuil*, or *Celine Forestier* with *Empereur de Maroc*,—but also their diversity of form. You may grow the Rose in a thumb-pot, with a flower "in shape no bigger than an agate-stone on the fore-finger of an alderman," or you may cover the front of your house with it. You may, in fact, grow the Roses you most like in the form you most like—standards or half-standards, pillars, pyramids, or dwarfs. And I may say here, having been asked to do so, that I prefer to grow my own Roses, generally speaking, on briars about two feet above the ground, for thus they require no unsightly props, no rain can spoil their blooms by beating them against the wet earth, as with dwarfs, their complete beauty is brought at once before the eye, and, being within easy manipulation of the gardener, a symmetrical proportion is more readily attained, and of course more lastingly prolonged. Tall standards* are very useful for the back row in borders, or as the centre of beds, but are rarely beautiful in an isolated state. Their most zealous admirers must allow, I think, that the more the briar is concealed the more attractive is the tree, that the more we see of the banner and the less we see of its pole the better; and no opponent of the Standard, though he liked it as little as the Scotch our Standard at Northallerton, could require a more full confession.

Then, as to cost, you may establish a Rose garden with the money

* I take this opportunity of assuring "G. F." that I much appreciate his welcome words of commendation contained in an article on "Standard Roses," which appears in the *Florist* for October.

which is asked for a rare Pinus or Orchid, and may reproduce your favourite varieties on the hedge-row briar or the Manetti stock, by the easy, interesting, and sure process of "budding," at a very small outlay, and to almost any extent. But be cautious, my Spades, unless you have a taste for rubbish, not to order your Rose trees, nor your anything else, from those Cheap Jacks of the Floral Market, who profess to be so much more liberal than their neighbours. Buy good razors, O my friends, as ye love to enjoy your breakfasts with a temper smooth as your chin; and buy good Rose trees, O ye amateurs, as ye hope to look gladly on your feast of Roses, when "the time of Roses" shall come. The prices charged by the best growers are quite low enough, and you will believe one who has bought and buys largely, to ensure a good article to the purchaser and a fair remuneration to the seller.

For ornamental purposes, as a cut flower, what have we so effective as the Rose—whether in the bouquet (Mary Johnstone *fecit*) of some ball-room belle, herself

"A Rosebud set with little wilful thorns,
And sweet as English air can make her,"

in the elegant vases of the drawing-room, or, as I most rejoice to see them, in the cups of silver, won by their ancestors, upon the dinner-table and with the dessert? When Horace invites the friends of Plotius Numida to celebrate with appropriate honours the return of that distinguished officer from Spain, he bids them to have abundance of Roses at their feast ("*neu desint epulis rosæ*"); and when he essays to cheer up Sam, in the person of Q. Dellius, he recommends him to lose no time in giving an order for Roses ("*flores amænos ferre jube Rosæ*"). Without endorsing his other recipes for driving dull care away, I may sympathise with him, I hope, in his love of the Rose; and I like to fancy him, calling upon his friends to pass the Falernian, and, having previously proposed to them his favourite toast, "*pulchræ puellæ, novies honoratæ*," "the Ladies, with three times three," requesting them to drink without heeltaps (the latinity for heeltaps is lost) "*Vivat Regina Florum*," "Long Bloom the Rose!"

I have been asked to make a few remarks on the subject of growing Roses for exhibition, but have occupied your time so long, that I must transfer to Mr. Evans the consideration of this topic in his lecture on "Shows and Showing." I must not, however, defer, or the time of planting Roses will be past, to give, in compliance with another request, a list of twenty-four Roses which seem to me, when shown in their most perfect state, to be the most beautiful of all—of all, I mean, which I have myself proved. Some of them may soon be displaced by those glorious *improvements*, which come to us every season, and which give an additional charm to Rose-growing; but as yet they are unsurpassed, and like the four-and-twenty blackbirds baked in a pie, are a dish, or as we should term it a pan, quite worthy to be set before a king.

TWENTY-FOUR SELECT ROSES.

Noisette, Cloth of Gold.

Teas, Adam, *Devoniensis*, *Gloire de Dijon*.

Gallica, Boula de Nanteuil.

Hybrid Bourbons, Coupe d'Hebe, Charles Lawson, Paul Ricaut.

Hybrid Perpetuals, Comtesse Cecile de Chabrillant, Anna de Diesbach, Comte de Nanteuil, General Jacqueminot, Jules Margottin, La Reine, Louis Peyronney, Madame Masson, Madame Hector Jacquin, Mrs. Rivers, Madame Vidot, Prince Leon, Lord Raglan, Triomphe de Paris, Victor Trouillard, William Griffiths.

I leave you, dear brothers, in their sweet society. Tend them with all love and care; and then, as surely as from the Rose trees of sunnier France comes the glory of our English gardens, you shall rejoice to repeat from a thankful heart,—“ROSE EST BONHEUR!”

S. R. H.

LATE-BLOOMING ROSES.

MY attention all this month, and the preceding one of October, has been drawn to a bed of Roses, consisting of a score or two of dwarf plants, which have had an unceasing succession of beautiful flowers, far beyond anything I have ever seen in autumn-blooming Roses. On looking into them I found them to be a new variety of Hybrid Perpetual Rose called *L'Etoile du Nord*, which was one of the new Roses of 1860, condemned as not being up to my standard, its petals being thin, and the Rose, although very large and of a brilliant crimson, seeming an inferior variety of General Jacqueminot, from which one would judge it had been raised. As the treatment of these Roses may be of interest, and lead to a new and simple mode of cultivating Roses for blooming very late in the season, I will, in a few words, give it.

The original plants were received from France in December, 1859, with other new Roses, and their shoots taken off in January and grafted on Manetti stocks in the grafting-house, where, of course, artificial heat is employed. They grew well, and bloomed abundantly, in a cool house, in April and May, but, as I have said, their flowers not being thought first-rate, the plants were suffered to remain in small 4-inch pots till the middle of June, and then planted out, not being thought worthy of further pot cultivation. The ground they were planted in was heavily manured, so that they grew very freely, but were not noticed till the beginning of October, when the bed was observed to be a mass of buds and blossoms, the latter quite globular and of extraordinary beauty, and so they have continued to be till this day, the 24th of November. A large bouquet of them would have been shown at the meeting of the Floral Committee in November, but in the hurry of business they were forgotten. Now this simple fact seems to tell us, that what has resulted from accident may be carried out by Rose-cultivators, and lead to a method by which our Rose gardens may be made more beautiful in autumn than they have yet been.

The *rationale* of the matter seems to be this. The plants, from being cramped in their growth in early summer, when all their energies are in full play, hasten in autumn to make up for lost time, and thus grow and bloom in the greatest vigour. In the *Gardeners' Chronicle*,

No. 47 (1860), page 1042, I have described Strawberries as bearing freely in autumn from having been accidentally treated in the same way as my L'Etoile du Nord Roses. I should therefore counsel Rose-lovers to pot in 4 and 6-inch pots, in the month of January, free-growing thin-petalled Roses, such as the above, General Jacqueminot, Oriflamme de St. Louis, Triomphe des Beaux Arts, and others of the same nature, so as to give diversity in colour, and allow them to grow and bloom in an orchard-house or greenhouse till the middle of June, and then cut off their bloom-stalks and any flower-buds that remain, and plant them out in a rich border. The plants may be subjected to this treatment year after year, increasing the size of the pots to a small extent, so as always to stint their spring growth, for the roots of the plants will of course increase in bulk, and will in due course require 8-inch pots; it must, however, be a point observed, to give them as small pot-room as possible, that the early summer energies of the plant may be arrested.

I have, as it will be seen, pointed out thin-petalled Roses for this culture. I do this from observation only, for at this moment I have a bed of the very old Rose Gloire de Rosamenes in full bloom, and its flowers, instead of being flaccid and poor, as they are in summer, are globular, from not being expanded, and quite beautiful. I have also observed that some of the condemned new Roses growing in the same bed as L'Etoile du Nord have very double flowers and thick petals; these have bloomed very imperfectly.

THOS. RIVERS.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—Plants of Azaleas which have been kept in heat until now, for the purpose of forcing them to set their bloom-buds, must not, when removed to a cool house, be exposed at once to currents of cold air, but should be placed where they can be kept rather close for a fortnight or so. If not already done, get the whole stock neatly tied as soon as possible, and nicely arranged, giving every plant ample room, and keeping them near to the glass. Ventilate freely on every favourable occasion, but it should be remembered that through ventilation during cold winds only tends to brown the foliage and cause it to drop prematurely, and this should be avoided as long as the plants appear to be making up, giving air on cold rough days on the sheltered side of the house only. Water carefully; for although comparatively little will be required for some time, the plants should be examined twice a week, so as to avoid any of them being neglected, and when a plant is found to be dry it should be watered thoroughly. Camellias in bloom must be carefully guarded from drip, or excess of moisture in the atmosphere, either of which would cause the blooms to drop prematurely. If flowers are in demand beyond the supply, plants of these, the bloom-buds of which are in a forward state, if placed in a temperature of from 50° to 60°, will soon expand their flowers, and furnish a useful supply either for decoration or cutting. If any of the stock is

infested with scale, such plants should be carefully cleaned before the buds are too far advanced to be liable to be injured by the operation, and if too late for this, see that they are thoroughly cleaned before the wood-buds start into growth. Look over and attend to last month's directions as to watering, &c. *Conservatory*.—At this season every effort should be used to keep up a good display of bloom here, for this house will now be used much more than when the weather is favourable for out-door exercise; hence its inmates, if attractive, will be valued much more than they would be at any other season, therefore every possible care and forethought should be exercised, so as to secure a good supply of plants in bloom during the winter and early spring. Azaleas which set their buds early will soon come into flower, if placed in a warm moist temperature, and some of the early-blooming Rhododendrons require very little forcing to bring them into flower at any time after this season; and where there is a good stock of these, and Ghent and other hardy Azaleas, well set for bloom, a portion of the plants should be placed in heat at intervals of about three weeks, and as they are very showy and last long in bloom they will be invaluable. These, with Camellias, Heaths, Epacrises, Acacias, Daphnes, Correas, Gesneras, Cyclamens, Cytisuses, Chinese Primulas, Cinerarias, Mignonette, Tree Violets, and other things which bloom naturally in winter, will afford a good display. *Monochaetum ensiferum* is an invaluable plant for winter decoration, but it requires a temperature of from 45° to 50° ; *Heterocentrum roseum* requires similar treatment, and is also well deserving of notice. If not already done, trim the twiners, cutting back freely such things as Passion-flowers, and reducing the dimensions of all as far as can consistently be done, so as to admit as much light as possible. Plants growing in the borders which bloom in winter, as Acacias, Luculias, &c., must be well supplied with water at the root, but things which are at rest, especially deciduous things and such as are scarcely hardy in the temperature of this house, cannot be kept too dry at the root at present. Keep everything perfectly clean. Remove decaying leaves daily, and rearrange the plants in bloom frequently. Maintain a temperature of from 40° to 50° , and give air on the sheltered side of the house on every favourable opportunity, but avoid cold currents. *Cold Frames*.—These afford the best possible accommodation for the culture of all greenhouse plants in summer, but unless they are furnished with pipes, so that a little heat can be used to dry the atmosphere occasionally, and also to exclude frost, they are not fit quarters for many things in winter, for plants which are impatient of damp will not bear being covered and shut up, as, in severe weather, must be done to exclude frost; and although in mild winters most greenhouse plants may with care be wintered in cold frames, such things as *Boronias*, *Leschenaultias*, *Gompholobiums*, &c., should be removed to safer quarters at once. Water cautiously, keeping all rather on the dry side, but not to excess. Be prepared with efficient covering against frost, and give air freely whenever the weather will permit, especially to hard-wooded plants, as Heaths, &c., which it may be necessary to winter here. Look over and attend to last month's directions as to Cinerarias and Calceolarias, and let none of those which

are intended to form specimens suffer for the want of pot room. Water on the mornings of bright days, and keep a sharp look-out for aphids and mildew, and apply the proper remedy immediately either of these pests is perceived. *Greenhouse*.—The stock here will mostly be in a comparatively dormant state, and must be watered very cautiously, as any excess at this season would greatly injure, if not kill the plants; but they should be examined frequently, especially when fire-heat may be necessary, keeping all rather on the side of dryness, without carrying this too far, and when a plant is found to be dry it should be fully watered. Heaths, especially such as are in a growing state, and many other hard-wooded plants, if in want of more pot-room, may be shifted, but in repotting at this season care should be taken to have the ball of the plant and also the soil in a proper state as to moisture. Proceed as fast as possible with training and trimming up the plants. Turn the specimens half round occasionally, so as to expose all parts equally to the light. *Flower Garden*.—Little need be added here to last month's directions; look over, and see that these are attended to. Keep the stock of bedding-out plants as hardy as possible, by giving air as freely as the weather will permit, and keeping them rather dry at the root. Roses which are found to be tender, if lifted and laid in against a north wall with their tops covered with a mat, or laid in in any sheltered corner, protected with a sprinkling of litter or dry fern, will not be injured by the severest frost. *Stove*.—Take advantage of every leisure moment for getting specimens infested with insects thoroughly cleaned; and as many plants may be cut back, thinned, &c., this will be more easily done now than after the plants start into growth. Cut back *Ixoras*, thoroughly cleaning the foliage. Repot any that require it, and plants wanted to bloom early may be placed in the warmest end of the house. Also prune *Dipladenias*, &c., well thinning out the wood; repot them, and, if wanted for blooming in May, encourage them to push towards the end of the month; also *Allamandas* and other similar plants. Water very sparingly after repotting, especially things that have been partially disrooted, until the young roots get hold of the soil; but sprinkle such with the syringe, as the state of the atmosphere may render necessary. Use fire heat as sparingly as possible, and keep plants which are in a dormant state rather dry at the root.

Hardy Fruit.—See last month's directions in regard to planting all kinds of fruit-trees, and if any remain unplanted, and the weather continues favourable, it should be proceeded with immediately, otherwise, if much wet or severe frost sets in, this operation had better be deferred till February or March. Proceed with the pruning and nailing of all hardy fruit-trees at all times when the weather permits, beginning with Cherries, Pears, and Plums. Attend to previous directions in keeping the trees free from scale and moss. Prune Currants and Raspberries; when finished the soil should be dressed with rich manure, and forked in between the rows. Protect Figs from frost, either by covering with Fern or straw, or tied in bundles and bound with haybands. The fruit-store will require looking over often, and all decayed or spotty fruit removed; no air or light need be admitted after this time except

the store be *damp*, when a little air may be given on dry days. Trench and manure ground for new plantations of Currants and Gooseberries, and for planting Strawberries in the spring. *Forcing Ground*.—Pot Mint, Chervil, and Sorrel, and place the pots in the forcing-houses, where there is a moderate heat. Keep up a regular supply of small salad by sowing every few days in heat. Introduce a succession of Rhubarb, Seakale, and Asparagus roots in the forcing-pits, treating them as before advised; if these are forced in the open ground, the linings should be turned occasionally, or renewed, so that a good heat be maintained; cover with mats or litter in frosty weather. Give air to Asparagus as soon as the heads appear above the soil. Sow French Beans in succession, and top the plants as soon as they have made their second leaf. Cucumbers require every attention at this time of the year to keep them in health; still maintain the temperature previously advised, and give air every day when the weather permits. Stop and train the plants as they progress, and do not allow the leaves to crowd one another, otherwise they will soon get yellow; water occasionally with liquid manure; this should be done when the soil is dry. Keep up a moist temperature, from 55° to 60° , in the Mushroom house. Collect fresh horse-droppings and put them together in a dry place to heat, in preparation for making new beds by the end of the month. *Peaches and Nectarines*.—It must be remembered that these fruits will not admit of rapid forcing in the early stages of the process, therefore fire heat should be applied with caution, so that the night temperature does not exceed 50° , otherwise the blossoms will be weak and liable to drop; during the day the temperature may rise to 60° , with plenty of air on every favourable opportunity. Syringe the trees, and close the house early after a bright day; continue this till the blossoms begin to expand. Cover the outside border with leaves or litter, for the purpose of excluding frost and heavy rains. Tie in the trees in the next house, and get all ready for starting by the end of the month. *Cherries*.—By the end of the month the trees should be placed in the early house, if early fruit is required. Top-dress the pots with fresh loam and dung, and keep a moist atmosphere, with a night temperature of 45° to begin with. Admit plenty of air through the day. *Strawberries*.—Protect the pots from frost and wet by the same means recommended last month. Some pots of the early kinds may be placed in the forcing-house when the heat is moderate—the end of the month will be soon enough. Do not water them except they are very dry. *Pines*.—Succession plants in dung-pits, that are not otherwise heated, should have the linings renewed, so that the temperature does not fall below 65° , with a bottom heat of about 75° . These will not require syringing or water at the root for the present. Give a little air in fine weather, especially if the pits are damp, and cover every night. Those plants intended to start into fruit next month should not be watered, and the atmosphere kept dry; the temperature should also be increased to 80° or 85° . If the plants are in pots and the heat of the bed is declining, it should be forked over and the pots replunged. Plants swelling fruit should not be allowed to get dry, and a high moist temperature maintained. Syringe and close the pit early.

Collect plenty of leaves in dry weather, to be in readiness for renewing the beds in spring. *Vinery*.—Gradually increase the temperature of the early vinery started last month; at present it may range from 50° to 55° , and 60° by the end of December; the day temperature during sunshine may range 15° higher, at the same time giving air, but do not hurry them in dull cloudy weather. Syringe and keep up a moist atmosphere till such time as they are in bloom, when more heat and air are required, with less moisture. Thin and tie in the shoots as they advance, and stop one joint above the fruit. Prepare the succession-house for starting. *Kitchen Garden*.—The principal operation in this department at present is manuring, digging, and trenching all vacant ground, to be in readiness for cropping by-and-bye: this work should be forwarded at every favourable opportunity. Protect Celery and Endive from severe frost; some of the largest plants of the latter may be taken up and placed thickly together in pits to blanch. Give air every fine day to Cauliflower and Lettuce plants under glass. Make a sowing of Sangster's No. 1, or some other early Pea; also a small sowing of Mazagan Beans on a sheltered border.

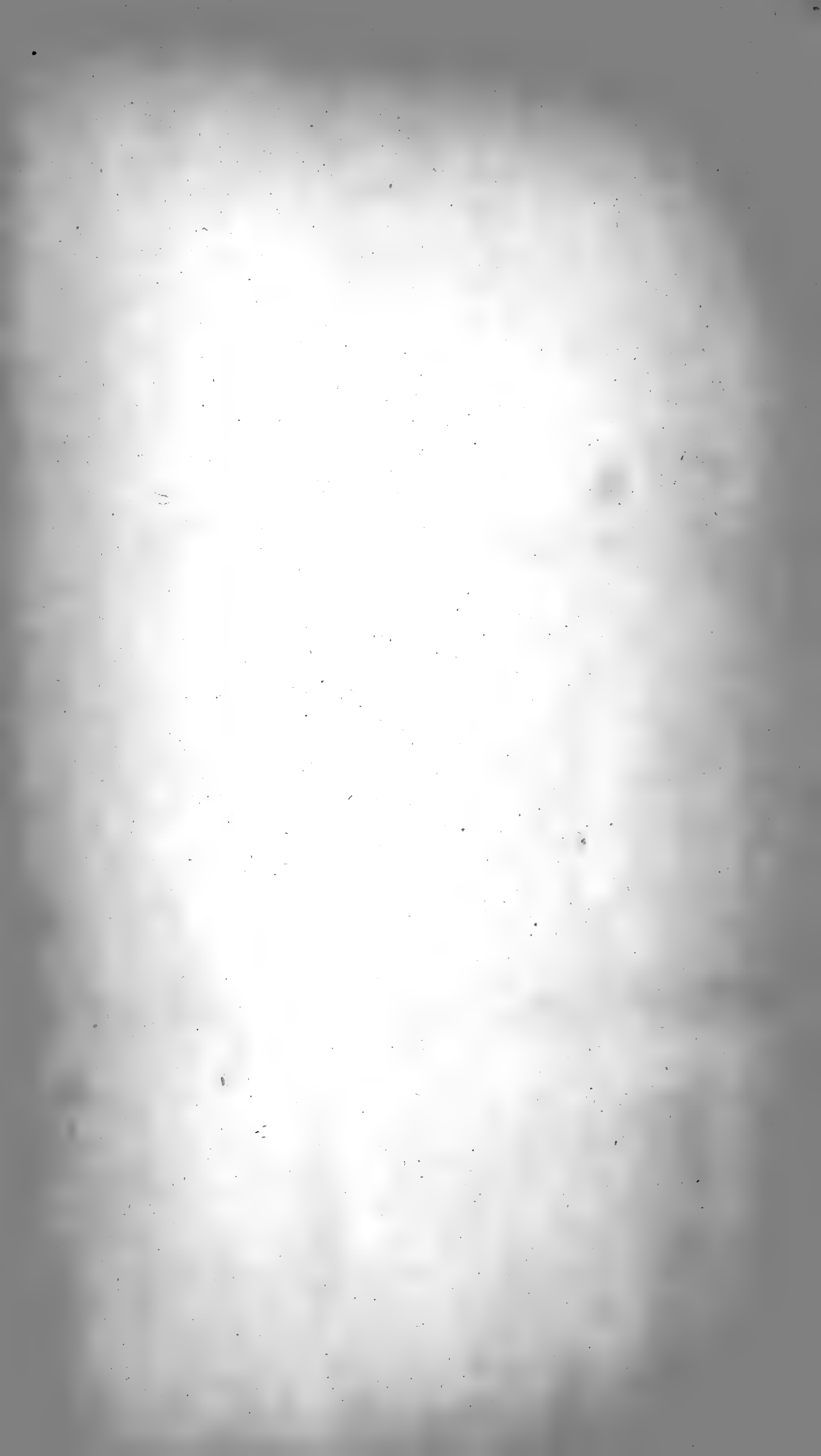
FLORISTS' FLOWERS.

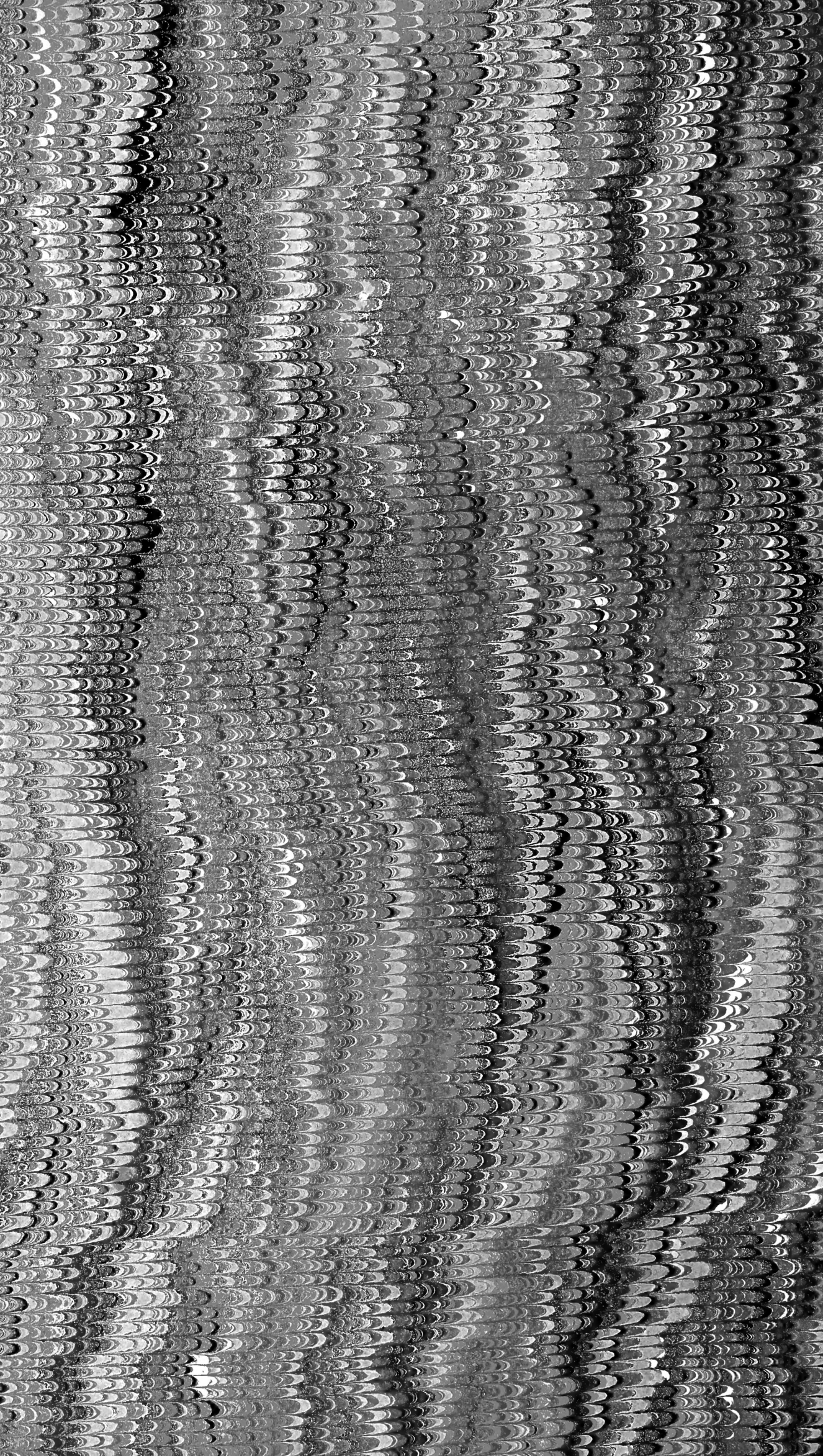
Auriculas.—Treatment same as last month; air, cleanliness, careful watering, and covering up during severe frost being the chief points to be attended to. *Carnations and Picotees*.—Young plants have much recovered their looks, the lateness of the season at one time threatening much to interfere with them. They, too, do not like much water, but when it is done let the ball be thoroughly soaked. *Dahlias*.—Look carefully over the tubers occasionally, and do not allow mildew to attack them. They must be, of course, kept from frost. *Pansies*.—Here, again, there is little change of treatment needed; in fact, for most of these half-hardy florists' flowers, the treatment is nearly the same at this time of the year. Watch against mildew, and, should it appear, sulphur well—the under surface especially. *Pelargoniums*.—Water ought not now to be given so plentifully, as the plants will be going into a state of rest. They may, however, now be tied out, and a commencement made for giving them that symmetry of form which is desired by all exhibitors; for those who have only a stage in a small house, fan training is the best, giving the plant all the advantage of all its branches towards the front. *Pinks*.—Look carefully over the beds now and then, and put into their places any plants that may have been displaced by worms, &c. *Roses*.—There are more hopes for the Rose-growers this season than at the same period of last year; the weather has been open, and the wood has ripened tolerably well. All alterations intended to be made in planting, &c., should now be done. There is a larger number of new Roses added to the *received* lists—such as Rivers, &c.—than perhaps at any season lately, and our neighbours are still promising more. *Tulips*.—Although to be regarded as hardy bulbs, yet they are the better for covering in very heavy rain or severe frost, but they ought not to be *coddled* too much.

GENERAL INDEX.

- Achimenes, 316**
Addition of leaves to show Roses, 362
American lawns, 306
 " plants, 214
Annuals, 33
 " at Chiswick, 316
Aphis not Apis, 37
Auriculas, 237
 " spring management of, 41
 " bloom, 1860, 274
 " showing, 116
Azalea, the, 12
 " culture of, 193
Balsam, the, 161
Bath Horticultural Fete, 185
Beet, varieties of, 185
Begonias, new, 91
 " variegated, 316
Bougainvillæa spectabilis, 176
Bristol Horticultural Fete, 182
Calendar for January, 28
 " February, 60
 " March, 91
 " April, 124
 " May, 156
 " June, 188
 " July, 221
 " August, 252
 " September, 284
 " October, 316
 " November, 349
 " December, 374
Cant's (Mr.) nursery, 268
Catalogue, Curteis, 60
Celosia aurea and coccinea, 353
Clarkia pulchella integripetala, 35
Chrysanthemums, pompones, 1, 52
 " large, 65
 " for American plants, artificial, 361
Cowslip, 122
Crystal Palace Exhibition, 186, 308
 " garden, 279
Cucumbers, winter, 257
 " varieties of, 306
 " Turner's "Favourite," 344
Dahlias, 1859, 17
 " new, 23
Dahlias, select, 132
Dartrey house, 240
Dianthus Heddewigii, 34
Education of gardeners, 266
Evergreens in flower-gardens, 144
Exhibition schedules, 204
Experimental gardening, 57, 75
Ferns, new, 90
 " variegated, 338
 " Isle of Wight, 234
Finale, the, 364
Floral Magazine, 181
Florists, homes of the, 101, 169
Florence, letters from, 294, 332
Flowers, spring, 347
 " to preserve, 123
Flower-gardens, plants for, 114
 " evergreens in, 144
Flower-pots, 292
Flower Queen, the—her new jewels, 363
Fruits and hot climate, 91
Fruit crops, 1860, 325
Fruit borders, porous, 73
Fruit-trees, pyramidal, 247
 " in shrubberies, 181
Fruit manual, Hogg's, 329
Fuchsias, new, 90
Gardening, experimental, 57, 75
Gentian, the, 177
Geraniums, bedding, 77, 90
Gishurst Compound, 247
Gladioli, new, 321
Grafting, Italian, 334
Grapes, early, 140
 " open air, 111
 " list of, 331
 " hardy prolific Muscat, 293
Grape growing, cheap, 282
Henderson's (Messrs. E. G.) nursery, 297
Hollyhocks, 23
Horticulture in Paris, 230
Horticultural Society's new garden, 168, 274
Hyacinths, 129
Influence of climate on the Pear, remarks on, 354
Ipomœa limbata elegantissima, 36
Ireland, horticulture in, 177

- Iris reticulata, 161
 Kew, notes from, 184, 280, 337
 Lawns, American, 306
 Lobelias, bedding, 316
 Mildew, orange, 328
 ,, rose, 345
 Nigella hispanica alba, 36
 Oxlip, 122
 Pansies, select, 54
 Pansy Society, Scottish, 238
 Paris, horticulture in, 230
 ,, letters from, 259
 Paul's (Mr. Wm.) nursery, 322
 Peach Salway, 97
 ,, in 1860, 196, 232
 Pear, Prince Albert, 10
 ,, Josephine de Malines, 182
 ,, grafted, 79
 Peas, list of, 300
 Pelargonium culture, 71
 Petunias, new, 90
 Picotees, rose-edged, 301
 Pine-apples, Frogmore, 48
 ,, culture of, 86
 Pinks and Picotees, 289
 Plants, new, of 1859, 24
 ,, flower-garden bedding, 114, 120
 Polmaise again, 40
 Pots, flower, 292
 Pot plants, watering, 183
 Primrose, 122
 Rhododendrons, 214
 Rome, letters from, 205
 Roses, 1859, 20
 ,, on the briar, 225
 ,, Comtesse Cecile de Chabrillant, 225
 Roses, late blooming, 373
 ,, on Manetti stock, 199
 ,, select, 339
 ,, President, 154
 Rose Show, National, 242
 ,, home from, 248
 Rose stock, Manetti, 16
 ,, mildew, 345
 Roses, standard, 313
 Royal Botanic Society, 112, 155, 215
 Six of Spades, 6, 43, 81, 104, 136, 163,
 210, 301, 341, 366
 Soils, fruits, and manures, 18, 56, 69,
 108, 132
 Spergula pilifera, 10
 Staffordshire, winter in, 110
 Standish's (Mr. John) nursery, 356
 Strawberries, remarks on, 271
 Strawberry, new late, 257
 ,, forcing, 208
 Syon House, 119
 Tiffany houses, 4
 Tonbridge Horticultural Fete, 239
 Trees, effect of the winter on, 135
 ,, in pots, hardy, 98
 Tulip Show, National, 182
 Vegetable Committee, 154
 Verbenas, 49
 ,, new, 89
 Vines in South Ireland, 147
 Violets, out door, 283
 Washington Pomological Society, 236
 Wellingtonias, native, 174
 Winter, severity of, 142
 Yorkshire, winter in, 66





AUTHOR.

80

F663

4.135.

TITLE Florist, fruitist & gard. miscellany

FEB 2 - 1929

W. H. Mendenhall

1860

